JOHNS-MANVILLE

JM

PRODUCTS

This

Johns-Manville Catalog

is filed in

Sweet's Catalog File

(ARCHITECTURAL)

1939

Johns-Manville

Offices in All Large Cities

Form BM-113A—2-39

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JOHNS-MANVILLE
BUILDING MATERIALS

This JOHNS-MANVILLE CATALOG
is filed in the 1939 SWEET'S
ARCHITECTURAL CATALOG FILE

JOHNS-MANVILLE
22 East 40th Street, NEW YORK, N. Y.

For list of offices, see inside back cover

JOHNS-MANVILLE BUILDING MATERIALS

For 81 years, Johns-Manville has been engaged in the development of permanent, fire-proof building materials—products designed to lower construction costs, reduce maintenance and eliminate waste; products that provide suitable mediums with which modern architectural and structural designs may be successfully executed.

The principal building material products of Johns-Manville are described in the following pages. Further data on any J-M product will be promptly furnished upon request at any of the Johns-Manville offices listed on the inside back cover

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JOHNS-MANVILLE

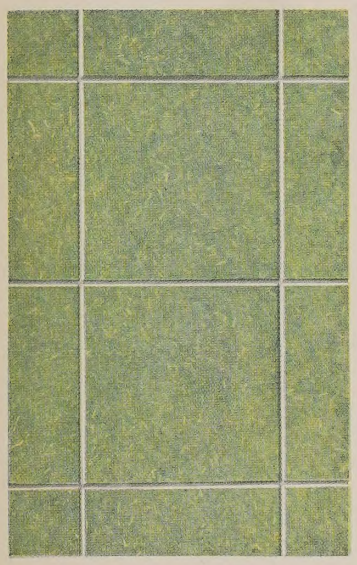
EXECUTIVE OFFICES

22 E. 40th St., NEW YORK

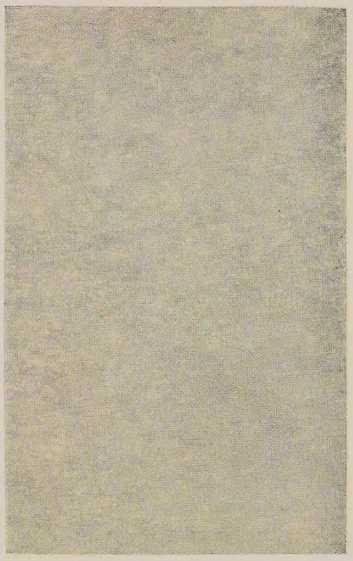
Products

J-M Asbestos Flexboard and Wainscoting. For the following Johns-Manville products, see File Index: Insulating Board; Asphalt Tile Flooring; Flush Doors; Acoustical Treatment; Transite Walls; Transite, Flat and Corrugated Sheets; Home Insulation; Built-up Roofing; Roof Insulation; Asbestos and Asphalt Shingles; Pipe Covering and Insulation; Steeltex for Plaster, Stucco and Brick Veneer; Steeltex Floor Lath.

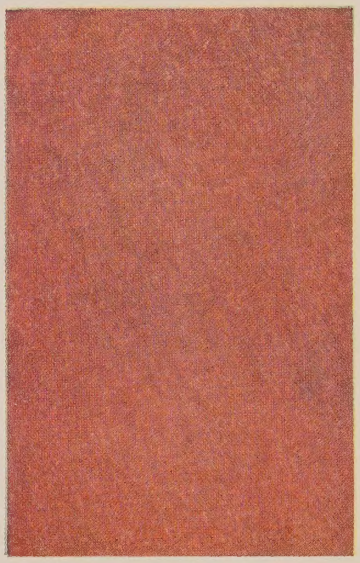
JOHNS-MANVILLE ASBESTOS FLEXBOARD



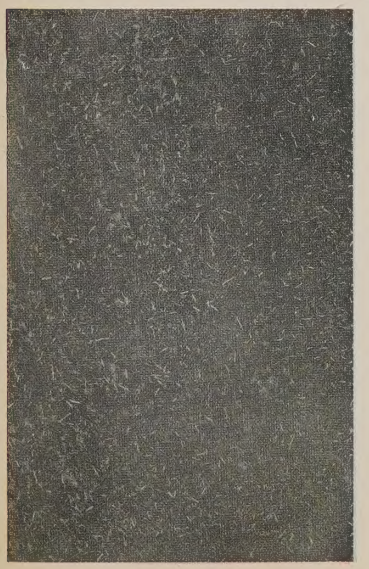
Green
(also available in plain sheets)



Light Gray
(also available with tile scoring)



Rose
(also available with tile scoring)

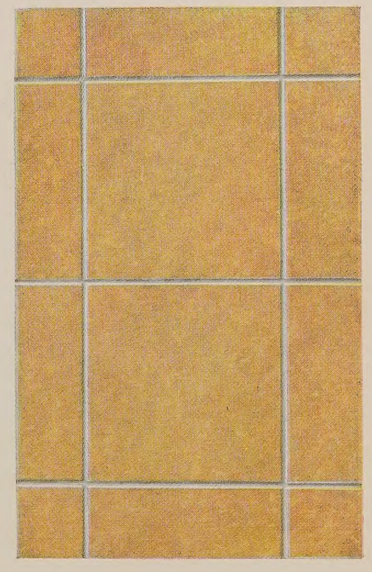


Slate
(also available with tile scoring)

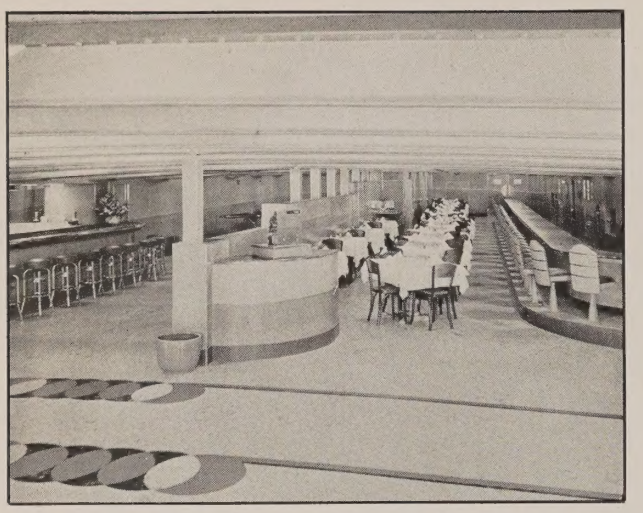
This colorful, fireproof, durable, asbestos-cement sheet is flexible enough so that it can be made to conform to surfaces having a considerable curve, yet perfectly rigid on 16″ spans. It can be sawed and nailed like wood; and is so easy to handle that it can be applied as quickly and easily as any fibre board. Its large sheets cover the wall quickly, with the minimum number of joints.

Asbestos Flexboard is made in two styles, Decorative and Standard: Decorative, designed to provide colorful, sanitary, decorative wall finishes in homes, offices, stores or public buildings; Standard for a wide range of utilitarian uses, indoors and out. Details of these styles are discussed in the following pages.

The low cost of Asbestos Flexboard not only recommends it for new work but also solves one of today's major building problems — the wall re-surfacing of existing structures that must be modernized on limited budgets.

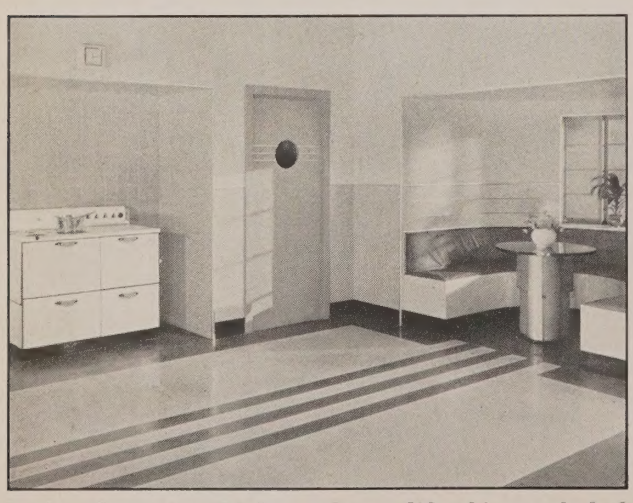


Buff
(also available in plain sheets)



On the "pleasure ship" Tango, hailing from Los Angeles, the bar, cashier's desk and service counter utilize the possibility of curving Decorative Flexboard

The impervious surface of Decorative Flexboard which can be effectively cleaned with a damp cloth makes an ideal wall for a professional office



In this ultra-modern kitchen and curved breakfast nook, both plain and scored Decorative Flexboard have been used with telling effect

J-M Decorative Asbestos Flexboard

As a distinctive wall finish for new or old work, Decorative Asbestos Flexboard is furnished either in plain or scored sheets, with a smooth, lustrous, factory-applied wax finish. The material has an attractive mottling, due to its asbestos fibre content, and is available in five shades—green, buff, light gray, rose and slate. The colors of Decorative Flexboard are not surface coatings; they are an integral part of the material itself.

Decorative Flexboard is highly wear-resistant. It is so hard that it can be marred only by excessive abuse, yet it is readily sawed and nailed and may even be curved to a considerable extent.

In new construction, Decorative Flexboard is applied over a solid base of plywood or similar material. On old walls, it may be applied directly over the old plaster, or other solid grounds.

Sheets are usually fastened with chromium-plated escutcheon pins or drive screw nails. Joints may be flush, beveled, battened or covered with polished metal mouldings, which may be used in addition to nailing.

In kitchens, lavatories, game rooms, beauty salons, barber shops, florist shops, department stores, restaurants, show rooms, stores, corridors and lobbies; wherever a colorful, decorative and sanitary finish is desired, Johns-Manville Decorative Flexboard is not only the ideal material, but the most economical as well.

Decorative Asbestos Flexboard is furnished scored (4″ c-c) in sheets 4′ x 4′ x ⅛″. Also furnished *unscored* in sheets 4′ x 8′ x ⅛″. Decorative Flexboard Battens, for use over joints, are furnished in 4 ft. lengths, in widths of 1¼, 2 and 4 in.

Unscored Decorative Flexboard in horizontal panelling provides an attractive wall treatment at little cost. The colors conform delightfully with modern interior decoration schemes

J-M Standard Asbestos Flexboard

The original, semi-rigid asbestos-cement sheet, J-M Standard Asbestos Flexboard, has wide utility, both in and out of doors. It is fireproof and durable. Its surface is cement-like in nature and can be left unfinished if moderate color variation is not objectionable. It can be painted after priming with linseed oil, two coats.

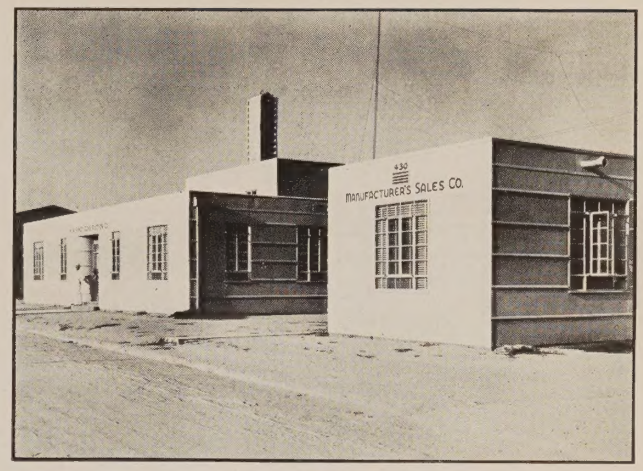
Applied over studs or furring in new construction, or right over the old plaster walls in existing buildings, it provides an attractive, serviceable wall finish.

The uses for Standard Flexboard are virtually without number. They include permanent partitions, door facings, open porch ceilings and garage lining; table tops, fire-resistant storage room and laundries; also summer bungalows, roadside stands, overnight cabins and boat houses; truck bodies, elevator shafts and fur storage vaults; and the lining of farm buildings such as chicken houses, brooder houses and milk houses, over insulation.

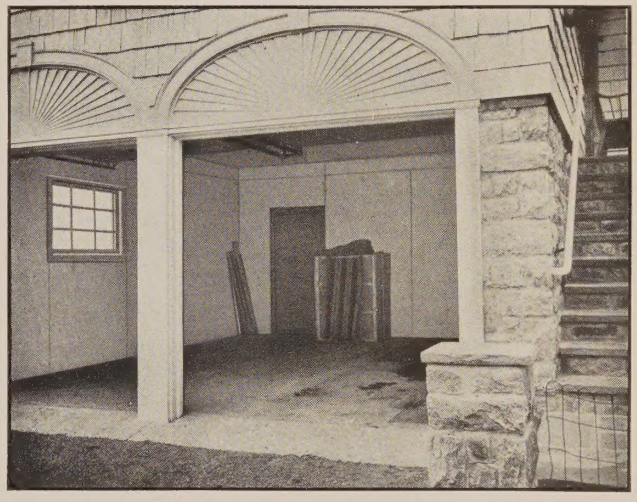
Because it is made of asbestos and cement, Flexboard will not rot or disintegrate. Rodents and vermin cannot pass through it. Although it readily takes paint, it needs no preservative treatment of any sort, either indoors or out. For special tile effects, the scored sheets can be painted to suit.

Where protection from heat or cold is desired, J-M Asbestos Flexboard should be applied over a backing of J-M Insulating Board, or J-M Home Insulation batts should be installed between the studs, joists or rafters.

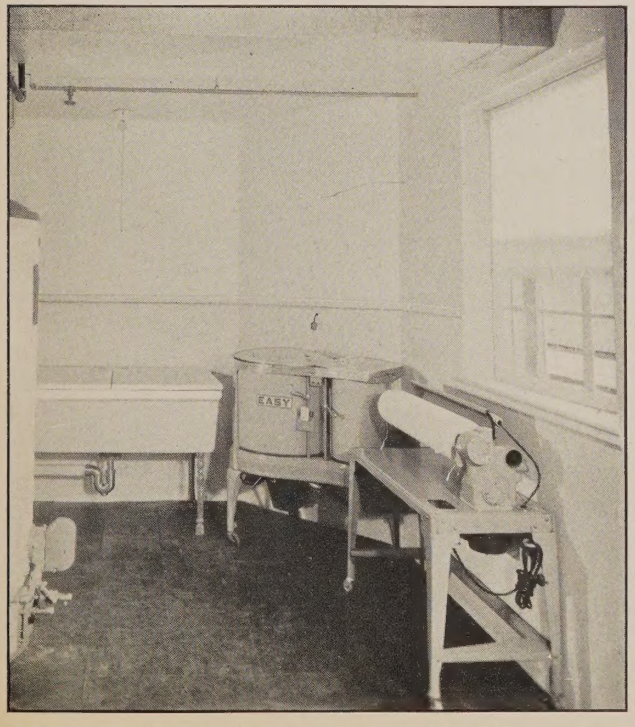
Standard Asbestos Flexboard is made only in unpolished, gray colored sheets, in two styles: 4′ x 8′ x $\frac{1}{8}$″ thick sheets, scored on 4″ centers and 4′ x 8′ sheets, unscored, in thicknesses of $\frac{1}{8}$″ and $\frac{3}{16}$″.



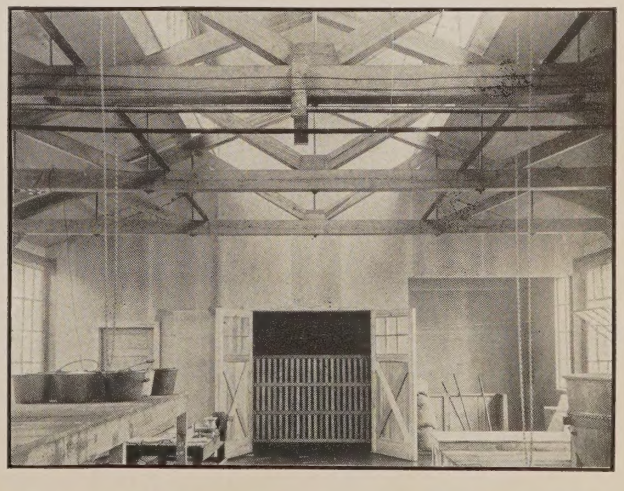
J-M Standard Flexboard, painted in colors of the owner's selection, makes an excellent exterior treatment which defies decay



J-M Standard Flexboard provides for garages an easily cleaned, fireproof lining that needs no painting to preserve it



J-M Standard Flexboard, painted in cool, light-reflecting colors, makes a pleasant and hygienic wall surface for basement laundry rooms



The entire interior of this plant (walls, ceiling, and elevator shaft) is constructed of J-M Standard Flexboard for sanitation and fire-safety

Application of Asbestos Flexboard

Asbestos Flexboard $\frac{3}{16}$" thick may be nailed direct to studding or rafters. For $\frac{1}{8}$" thickness, a solid backing, which may be an existing board or plaster surface, is recommended. 4d casing head nails may be used with $\frac{3}{16}$" Flexboard and button head drive screw nails or escutcheon pins with $\frac{1}{8}$" sheets. The material can be nailed close to the edge without cracking. Sheets should be fastened on not over 16" centers at intermediate points. If mouldings are not used, edges should be fastened on not over 8" centers.

Asbestos Flexboard can be applied to curved surfaces with the following minimum limitations:

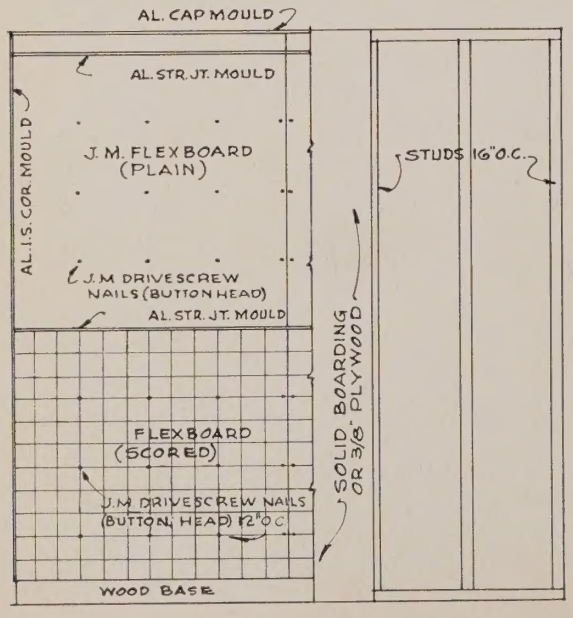
Thickness of sheets, in.	Longitudinal radius, in.	Transverse radius, in.
$\frac{1}{8}$	30	36
$\frac{3}{16}$	36	54

Joints between the sheets may be either left square or beveled on the job. Battens or metal trim can be used, as desired.

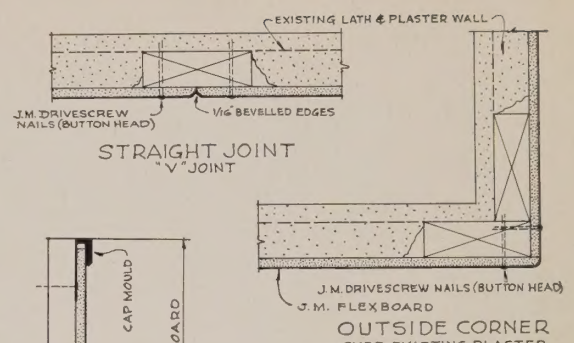
Battens, where used, can be either Flexboard Battens (as described on page 2), or strips carefully cut from Flexboard sheets. If there is no fire hazard, wood batten strips may be used.

Where the decorative effect of metal trim is desired, aluminum mouldings are available. Their polished exposed faces combine attractive appearance with unusual resistance to corrosion. Extruded aluminum is easily worked. At intersections, mouldings can be coped and mitered with a hacksaw. Nails can be driven through the flanges, a shallow groove $\frac{1}{4}$" from the edge acting as a guide.

Aluminum mouldings are furnished in four forms: Cap moulding, outside corner moulding, inside corner moulding and straight joint moulding. The cap moulding may be applied first and the Flexboard slipped into it. When applying an outside corner moulding or straight joint moulding, it is permissible to nail one flange only. The other flange may be slipped into place under the sheet of Flexboard already applied.

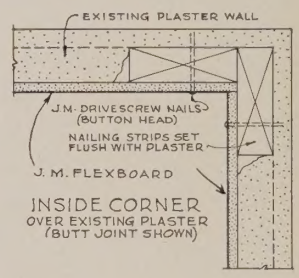


FULL HEIGHTH FLEXBOARD WALL OVER SOLID BOARDING

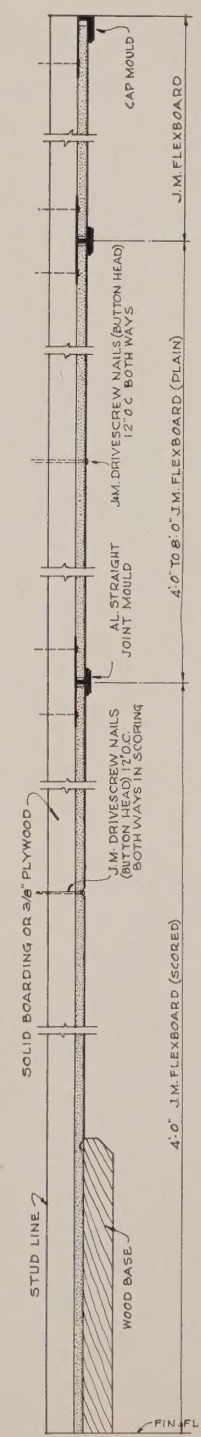


STRAIGHT JOINT "V" JOINT

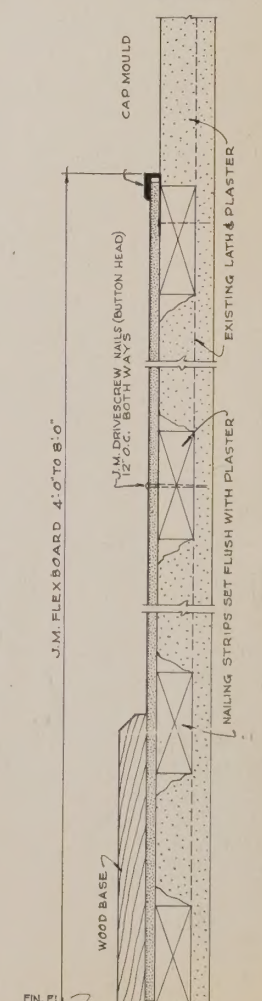
OUTSIDE CORNER OVER EXISTING PLASTER (BUTT JOINT SHOWN)



INSIDE CORNER OVER EXISTING PLASTER (BUTT JOINT SHOWN)



SECTION THRU FLEXBOARD WALL
CEILING HEIGHT - SCORED WAINSCOT PLAIN SHEETS ABOVE AND ALUMINUM MOULDS (NEW WORK)



SECTION THRU FLEXBOARD WAINSCOT
OVER EXISTING PLASTER WALL . ALUMINUM MOULDS USED (OLD WORK)

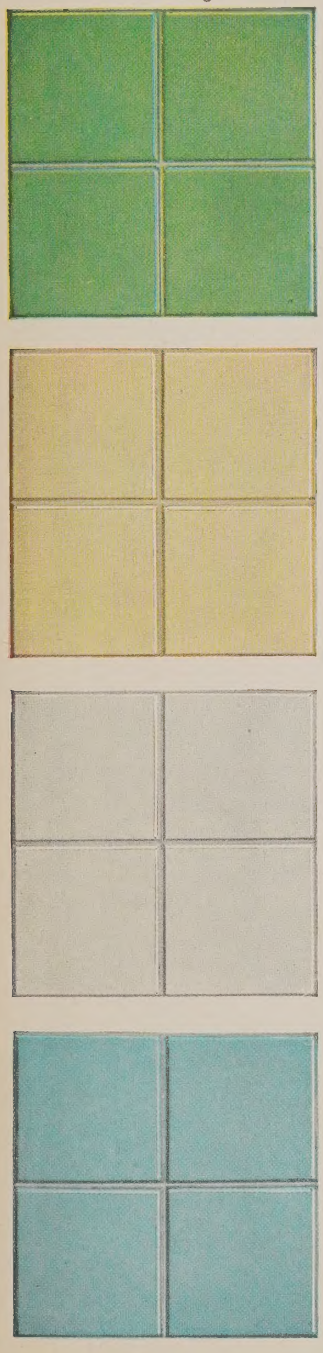
JOHNS-MANVILLE ASBESTOS WAINSCOTING

Johns-Manville manufactures three types of Asbestos Wainscoting, known as marbleized, tile design and color panels, which provide, at only a fraction of the cost, the effects and advantages of more expensive materials.

In the marbleized type, Johns-Manville has faithfully reproduced four of the finest marbles obtainable, the colors and mottling of which are illustrated below. The finish of these reproductions is so identical with the originals that it is almost impossible to distinguish the asbestos wainscoting from the actual marbles, after erection.

The tile design affords the wide choice of the attractive colors shown below and also a lustrous black. All these colors are also available without the scoring for tile effect, in smooth polished sheets known as color panels.

Tile Design



Colors:
Light Green, Ivory, White, Light Blue
(Black on special order)

J-M Asbestos Wainscoting Details

J-M Asbestos Wainscoting—available in three finishes—is made of asbestos fibre and Portland cement, moulded under great pressure into rigid, fireproof sheets. The three finishes available provide, respectively, the effect of tile, marble, or plain colored surfaces.

The face surface has a special "baked-on" finish which will not crack or craze and which will stand up under any normal conditions of use. It is sanitary and can be cleaned with ordinary soap and water. Cap and base units of the same material, similarly finished, are available.

The tile design sheets have scored joint markings forming four inch squares, which gives the effect of 4" tile set in cement. The tile design is furnished in black, white, ivory, light green and light blue, with the tile joint marking in white, except on white tile, on which the scoring is marked in gray. Separate cap and base strips are available in the same colors.

The marbleized design sheets are reproductions of the surface appearance, in identical detail, of the four marbles—Verde Antique, Black and Gold, Jaune Fleuri and Breche Rose, as illustrated here. Wherever the effect of fine marble is desired, as in foyers, banks, smart shops and sales rooms, Johns-Manville Marbleized Wainscoting answers every requirement, at only a fraction of the cost. It is also being increasingly used for bathrooms in homes of all types, in new structures and for remodelling.

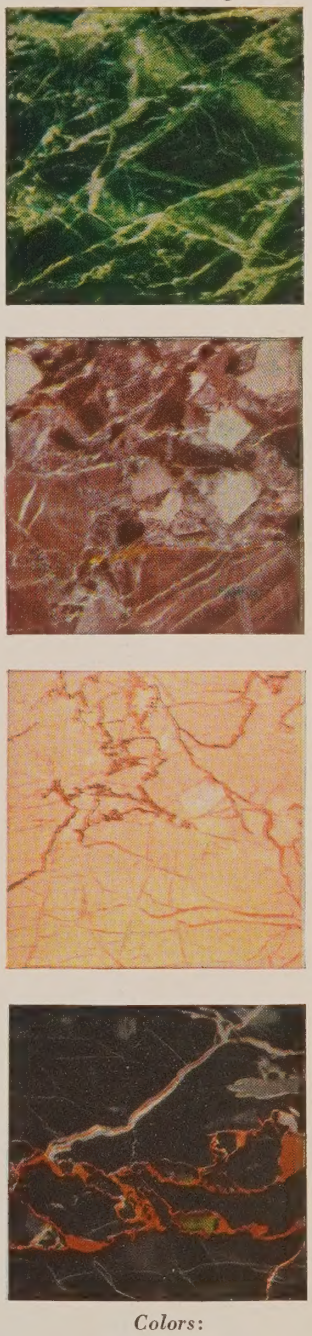
In the third type — designated as Color Panels — the sheets are furnished in black and the other colors of the tile design, but are unscored. With cap and base moulding in the same or contrasting color, or black, J-M Color Panels give effects in decoration which are modern, attractive and yet inexpensive.

Tile design and color panels come in sheets 48" x 48" x ¼"; the marbleized type measures 32" x 48" x ¼". The base and cap units are 4 ft. long; the tile base 5" wide, the marbleized base 6" wide; the tile cap 1½" wide, the marbleized cap 3" wide. The sheets weigh approximately 3 pounds per square foot, in either of the types.

Accessories for J-M Asbestos Wainscoting

For securing the various units, special 1½" nickel plated nails are provided, with casing heads for the tile and marbleized sheets and button heads for the plain. Joint cement and lacquer-enamel of the proper color for touching-up over nail heads accompanies each shipment.

Marbleized Design



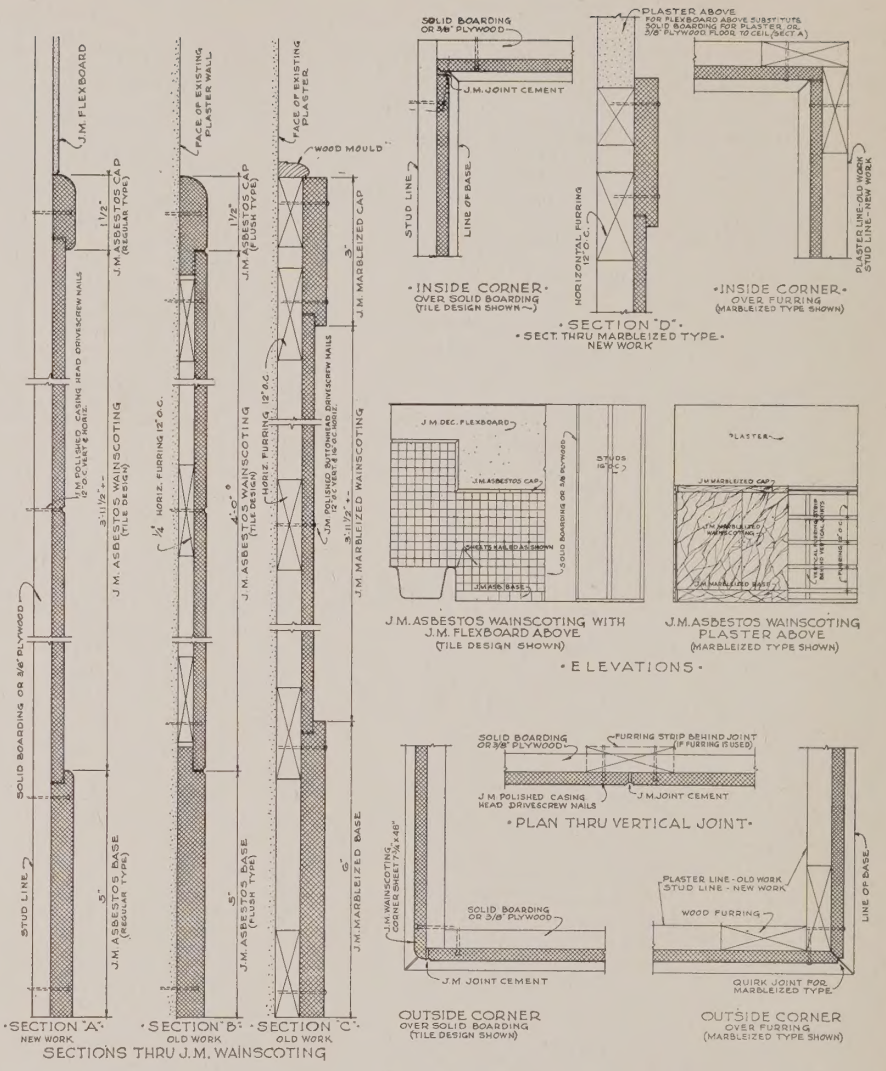
Colors:
(reading down)
Verde Antique
Breche Rose
Jaune Fleuri
Black & Gold

Application of J-M Asbestos Wainscoting

J-M Asbestos Wainscoting can be applied by anyone familiar with ordinary tools, the various units involved being readily cut with a hack-saw and drilled with an ordinary twist drill. Installations may be made over new or existing work, fastened to studs in wood frame construction or wood grounds in other types. Such surfaces as are to receive the wainscoting should first be covered with a layer of J-M Insulating Board.

The standard wainscoting sheets are secured at the top and bottom by the cap and base, these units being rabbetted to receive them. Intermediate fastening is provided by special nails or screws, the former being set and touched up with lacquer-enamel, making them practically indiscernible. The cap and base units should be similarly fastened.

The intermediate joints are formed butted in white lead, excess of this material being wiped off after the sheets have been secured. Inside corners are similarly formed. Outside corners may be mitered or, in the case of the tile and color panel designs, may be finished with the bull nose corner strip available in the same colors.



When wainscoting is applied in shower stalls and around bath tubs, the joints are waterproofed with J-M 15-lb. Asbestos Waterproofing Felt applied over the entire area covered by the wainscoting. The felt is lapped 3" horizontally and 6" vertically, and the bottom edge allowed to flash over rim of tub or shower curb. Joint cement is applied to the edges of the wainscoting sheets, and on the backs for ½" along the bottom edges. The sheets must be firmly set in the cement before fastening, and any excess cement removed before it dries.

SHORT FORM SPECIFICATION FOR FURNISHING AND APPLYING JOHNS-MANVILLE ASBESTOS WAINSCOTING

(As the furnishing and applying of this material is generally made a part of the carpentry specifications, the following has been prepared to be so included.)

Note: *The following information relates to work allied with the application of the Wainscoting and should be provided for in the specifications for the work involved.*

Studs shall be spaced at 16" centers and so located as to allow the erection of the sheets of Asbestos Wainscoting with the least amount of cutting and to the most symmetrical arrangement. Studs or grounds shall be provided at all points where nailing is to be done. Grounds shall be provided, to which bath room accessory fittings, etc., are to be secured.

In fire proof construction, grounds shall be set to receive all nailing.

The contractor shall furnish and install Johns-Manville Asbestos Wainscoting (*state whether "Tile Design," "Marbleized Design" or "Color Panel Design"*) to (*state in detail surfaces to be covered*) and Johns-Manville Asbestos Base and Cap.

Height—The Wainscoting shall be erected to a height of (*state height or "as shown on drawings"*).

Color—The Wainscoting shall be (*state color*), the base and cap (*state color*).

Insulating Board Backing — Johns-Manville Insulating Board shall be installed as a backing over which the Asbestos Wainscoting shall be erected.

Installation—The Asbestos Wainscoting and accessories shall be installed in strict conformity with the printed instructions of the manufacturer.

Note: *If this Contractor is to include the erection of the bath room accessory fittings, such as towel bars, etc., so state, including a list of such fittings.*

JOHNS-MANVILLE

EXECUTIVE OFFICES

22 East 40th Street, NEW YORK, N. Y.

Member of the Producers' Council, Inc.

Products

JOHNS-MANVILLE RIGID ASBESTOS ROOFING and SIDING SHINGLES and ASPHALT ROOFING and SIDING SHINGLES.

For the following Johns-Manville products, see File Index: Acoustical Materials; Built-up and Insulated Roofs; Home Insulation; Insulating Board; Pipe Coverings and Insulations; Asphalt Tile Flooring; Transite, Flat and Corrugated; Asbestos Wainscoting and Asbestos Flexboard; Steeltex for plaster, stucco and brick or stone veneer; Steeltex Floor Lath and Welded Wire Reinforcement; Transite Walls for office partitions; Flush Doors.

JOHNS-MANVILLE RIGID ASBESTOS ROOFING AND SIDING SHINGLES

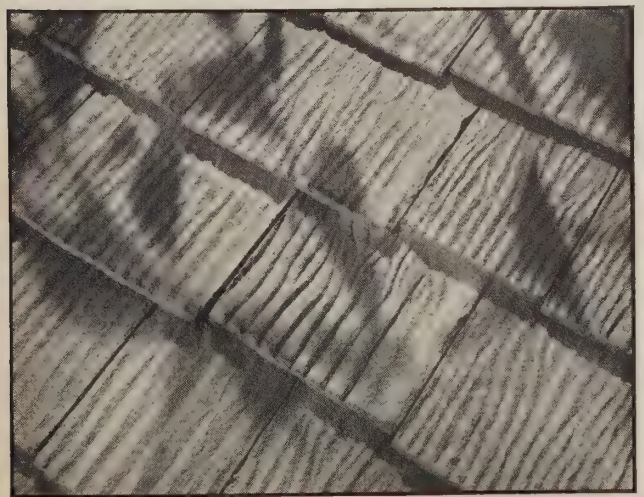
J-M Rigid Asbestos Roofing and Siding Shingles are made of asbestos fibre and portland cement united under great pressure. They are fireproof and highly resistant to weather and wear.

J-M ASBESTOS ROOFING SHINGLES

J-M Asbestos Roofing Shingles are manufactured in various sizes for application in three styles broadly known as the American, Dutch Lap and Hexagonal methods. Included are shingles of uniform or tapered thickness, smooth or rough texture, applicable in one uniform color or in two or more colors blended.

The application of the American Method shingles, like other roofing materials of this form, may be varied to obtain effects ranging from those in which the line of the butts appear straight and entirely regular, to those in which the units appear to have been placed entirely at random, with no definite scheme of regularity having been followed. Eaves starters, eaves shingles, ridge and hip shingles, and ridge roll are provided as required by the various styles and varieties.

Tables containing colors, dimensions, weights and other data on each style, as well as on various types of siding shingles, will be found on pages 2 and 4.



The charm and beauty of Early American Colonial roofs recaptured, and made fireproof and lasting in Salem Shingles

I-M Rigid Asbestos Shingles, American Method

It is recommended that roof surfaces which are to receive asbestos shingles be pitched not less than 4 in. to the foot where American Method Shingles are to be used and not less than 5 in. to the foot for the Hexagonal or Dutch Lap Methods. Siding shingles should be applied only to vertical walls.

Underwriters' Rating

American Method Roofing Shingles carry the Underwriters' Class A label.

Dutch Lap and Hexagonal Method Roofing Shingles carry the Underwriters' Class B label.

Salem Roofs

J-M Salem Singles have been developed to provide when applied, a literal counterpart in appearance of the aged hand-hewn wood shingle roofs of early New England, and have, in addition, the advantage of being fireproof and superior in all points of durability.

These shingles are available in warm weathered gray, brown and black and in varying shades of greens and reds, all of which may be used singly or in combination.

They may be applied over solid wood sheathing in new construction or over existing wood shingles.

Data on the Salem Shingles will be found in the table at the bottom of the next page.

J-M No. 70 Hexagonal Shingles
Because of its pleasing design and great economy, this is one of the most popular asbestos shingle styles

Dutch Lap and Hexagonal Methods

In addition to the Salem Shingles, which are laid American method, other styles have been developed to provide, at a cost within the budget limitations of even the most modest house, a fire and weather resisting roofing material which, through a proper combination of colors, or colors and texture, makes the roof partake of the spirit of the house and its surroundings.

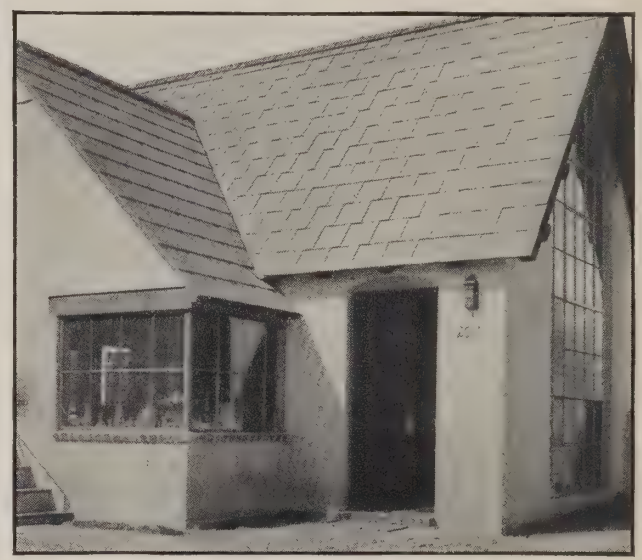
No. 70 Hexagonal Shingle—Applicable by the familiar Hexagonal method, this shape provides a saving in labor and material through the relatively few number of pieces per square involved.

No. 30 Dutch Lap Shingle—This shingle, with the economy of the Dutch Lap method, provides the familiar horizontal butt line characteristic, at about the cost of high grade asphalt shingles or other low priced roofing materials of far less permanence.

Both of these styles make procurable, at low cost, a durable, fireproof roof in colors which are in keeping with the character of the building.

Re-roofing

For many years, Johns-Manville has advocated, in connection with re-roofing projects, the application of rigid asbestos shingles directly over existing wood shingles. This practice has been followed so successfully that we do not hesitate to recommend it to the architect.



J-M No. 30 Dutch Lap Shingles
This beautiful Dutch Lap Roof demonstrates how closely the lines of this shingle resemble the American method

DATA ON JOHNS-MANVILLE RIGID ASBESTOS ROOFING SHINGLES

Shape	Catalog No. and type	Size	Thickness	Colors marked with (*) have a textured surface; others are smooth surfaced	Approx. weight per square applied, lb.	Weather exposure	Number of shingles required per square	Galvanized shingle nails required per square	Copper storm anchors req'd per square	Catalog No. of eaves starter or hip and ridge shingle to be used.
	No. 35 Salem American method	Standard 8″x16″ Random 6″, 8″ and 10″x16″	Tapered ¼″ butt	*1. Weathered gray *2. Weathered black *3. Olive green *4. Sea green *5. Apple green *6. Forest brown *7. Granada red *8. Touraine red	540	7″	260	2½ lb. 1¼″ nail	None	No. 36 Salem starter No. 37 Salem hip and ridge
	No. 70 Hexagonal method	16″x16″	Uniform 5/16″ approx.	Mottled gray Mottled blue-black Mottled red *Mottled green Mottled copper	275	13″x13″	86	1 lb. 1¼″ nail	86	No. 17 and No. 71 starters
	No. 30 Dutch Lap method	16″x16″	Uniform 5/16″ approx.	Mottled gray *Mottled blue-black *Mottled red *Mottled green Mottled copper	290	¼ side lap 13″x12″ ⅓ side lap 13″x10⅔″	92 per 99⅔ sq. ft. 104	1 lb. 1¼″ nail	92 per 99⅔ sq. ft. 104	No. 31 starter

JOHNS-MANVILLE ASBESTOS SIDING SHINGLES

J-M Tapered Shake Texture Asbestos Siding Shingles

In these asbestos siding shingles, Johns-Manville has captured all the beauty of texture found in weathered hand-hewn wood shingles, mellowed by time, and has made this charm available in a lasting, fireproof material.

Siding of J-M Shake Texture Asbestos Siding Shingles is durable and fireproof, for these shingles will not rot, corrode, split or burn. They do not need periodic painting to preserve them. Their colors—blended gray and oyster white—produce the attractive appearance of the old originals. The tapered butts carry out the effect of ruggedness and give a heavy shadow line.

Yet, despite all their advantages of beauty, fire protection and durability, these new Shake Texture Shingles cost less applied than most other types of siding

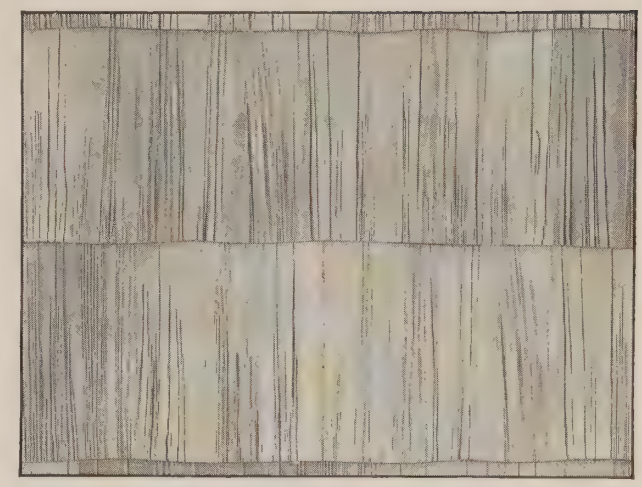
Colonial Charm with Fireproof Johns-Manville Asbestos Siding Shingles with Cedargrain Texture

of comparable permanence. Although the wide units, when applied, have the appearance of individual shingles in random widths, they are actually large sheets which cover large areas quickly and economically.

When used for re-siding work, they can easily be applied right over the old wood siding, thereby saving the expense of tearing off the old material. Combined with a roof of J-M Asbestos Roofing Shingles they complete the protection of the exterior of the building from fire and weather.

J-M Cedargrain Texture Asbestos Siding Shingles

These shingles possess all the qualities of durability and fire-resistance of the Shake Texture Shingles but



Close View of the No. 105-T Shake Texture Siding Shingles

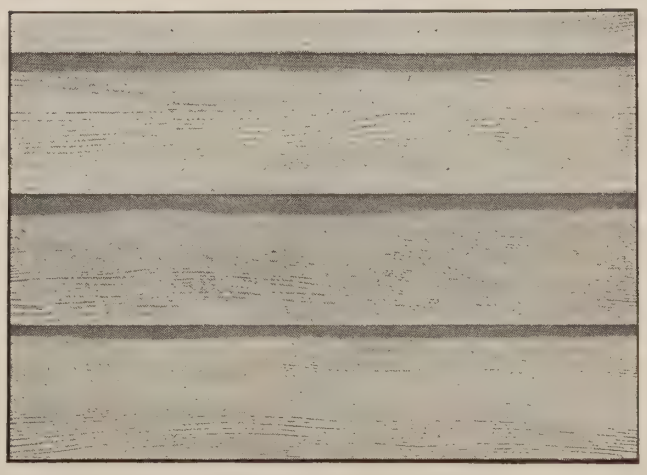
differ in that they are of uniform thickness and have the graining of the ordinary weathered wood shingle. Available in blended gray, oyster white, mottled gray or special mottled gray, they offer a range of color suitable for the majority of moderate-priced houses. They are adaptable for use on new work or for re-siding over old materials.

Sizes, weights and other detail data on all types of J-M Asbestos Siding Shingles will be found on the following page.

J-M Cedargrain Asbestos Clapboards

The desirable features of lapped wood siding, plus durability and freedom from maintenance for preservation are incorporated in J-M Cedargrain Asbestos Clapboards. Made of asbestos and portland cement, they are fireproof, rot-proof and require no painting to preserve them.

The face of each clapboard is attractively surfaced for its entire length to give the effect of the grain in natural wood. The clapboards are sufficiently large to permit rapid and economical application.

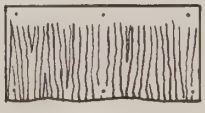
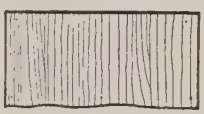
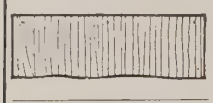


J-M Cedargrain Asbestos Clapboards

J-M Cedargrain Asbestos Clapboards are $\frac{3}{16}$ in. thick, 9½ in. wide, and 8 ft. long. They are designed to be applied with 1½-in. lap, giving 8-in. exposure to the weather. Sufficient material to cover one square consists of the equivalent of nineteen 8-ft. lengths, which are packed in two bundles. With each square there are shipped 25 backer strips and ½ lb. of 1¾-in. bronze face-nails. In addition, ¾ lb. of 1¼-in. galvanized needlepoint nails (1¼ lb. 2-in. nails for re-siding) are required for the concealed nailing.

The clapboards are factory-punched on approximately 16-in. centers, 1½ in. from butt edge to receive face-nails and 1 in. from head to receive galvanized iron shingle nails.

DATA ON JOHNS-MANVILLE RIGID ASBESTOS SIDING SHINGLES

Shape	Catalog No. and type	Size	Thickness	Texture	Colors	Approx. weight per square applied, lb.	Weather exposure	Number of shingles required per square	Galvanized shingle nails required per square
	105-T	24″x12″	Tapered $\frac{5}{16}$″ butt (approx.)	Shake	Oyster white Blended gray	260	10½″	57	1¼ lb. 2″ nail
	107-T	24″x12″	Tapered $\frac{5}{16}$″ butt (approx.)	Shake	Oyster white Blended gray	270	10″	60	1¼ lb. 2″ nail
	No. 105-U	24″x12″	Uniform $\frac{3}{16}$″ approx.	Cedargrain Smooth	Blended gray Oyster white Mottled gray Special mottled gray	185	10½″	57	1¼ lb. 2″ nail
	No. 106	24″x8″	Uniform $\frac{3}{16}$″ approx.	Cedargrain	Blended gray Oyster white	200	6½″	93	2 lb. 2″ nail
	No. 107-U	24″x12″	Uniform $\frac{3}{16}$″ approx.	Cedargrain	Blended gray Oyster white	195	10″	60	1½ lb. 2″ nail

JOHNS-MANVILLE ASPHALT ROOFING AND SIDING SHINGLES

Johns-Manville Asphalt Roofing and Siding Shingles are made of heavy felts saturated with the finest asphalt and surfaced with crushed mineral. They are made as strip shingles, both Hexagonal and American styles, and as individual shingles, American, Dutch Lap and Hexagonal styles. All J-M Asphalt Roofing Shingles carry the Underwriters' Class C label.

These shingles are made in a variety of colors, including monotones and blends. Among the latter are the "Duo-Blend" effects in which the base color is overlaid intermittently with another color.

The Double Coated Thick Butt strip shingles have an extra coating of asphalt and slate on the exposed side. The Sealed Edge Thick Butt strip shingles are redipped, which gives a thick butt and sealed edges.

Color reproductions of J-M Asphalt Shingles and complete data on sizes, weights, exposure, etc., are included in the new J-M Building Material Catalog, which may be had on request at any Johns-Manville office. Ask for Form BM-2A.

J-M Asphalt Shingles make a colorful, long-lived roof, at low cost

JOHNS-MANVILLE

EXECUTIVE OFFICES

22 East 40th Street, NEW YORK, N. Y.

Member of The Producers' Council, Inc.

Products

JOHNS-MANVILLE INSULATING BOARD and INSULATING LATH, 25/32" WEATHERTITE SHEATHING, DECORATIVE INSULATING BOARD, HARD BOARD and PANLBOARD.

For the following Johns-Manville products, see File Index: Acoustical Treatment and Sound Isolation Materials; Asbestos and Asphalt Shingles; Built-up and Insulated Roofs; Home Insulation; Pipe Coverings and Insulations; Asphalt Tile Flooring; Flat and Corrugated Transite Sheets; Asbestos Wainscoting and Asbestos Flexboard; Transite Walls; Flush Doors.

JOHNS-MANVILLE INSULATING BOARD PRODUCTS

J-M Insulating Board

Johns-Manville Insulating Board is a knotless, grainless, all-wood fibre board that possesses great strength. Because it is made in large units (4 ft. wide, 4 to 12 ft. long) and is so easily applied, it simplifies the construction, modernization and decoration of all interiors.

It is available in the attractive color and interesting texture of the natural finish, and in the new glaze-coat finish, a smooth surface, of warm sand color, which can be painted, stained or stenciled without priming. The natural color of J-M Insulating Board is a pleasing buff that harmonizes with practically any decorative scheme. The surface texture suggests wall fabric. For this reason, as well as for economy, it is often used without paint or other finish. Where special effects are desired, it can be painted or stained to suit. It yields readily to cutting with beveling tools, and can be so decorated on the job. Joints may be beveled, or concealed with battens.

J-M 25/32" Weathertite Sheathing conforms to millwork standards and is designed for use as sheathing under wood siding, stucco, masonry veneer or, with furring, under shingles. Made in sheets 4 ft. wide, in convenient lengths of 8, 9, 10 and 12 ft., it enables workmen to cover large areas in one-third the time ordinarily required for wood sheathing.

Besides substantially reducing labor costs, J-M 25/32" Weathertite Sheathing also helps to insulate the home against heat and cold.

JOHNS-MANVILLE
announces a
new Insulating Board Factory
now under construction at
Jarrett, Virginia
to be completed early in 1939

This, the most modern board mill in the world, will enable Johns-Manville to offer many additions and improvements, in materials and finishes, in an enlarged and most complete

NEW J-M INSULATING BOARD *LINE*

J-M Batten Strips

Batten strips of beveled Glaze-Coat finish Insulating Board are available in 2½-in. widths, in lengths of 8, 10 and 12 ft., for paneling with Insulating Board Sheets.

J-M 25/32" Insulating Board Sheathing, in large size sheets, is easily and economically erected

A modernized living room with Insulating Board ceiling and Bevel Plank walls is an attractive improvement at little cost

J-M Insulating Lath

J-M Insulating Lath is the same material as Insulating Board, except that it is furnished 18x48 in., with long edges ship-lapped, and all face edges beveled. Plaster bonds to the "gridded" surface with a strength far greater than on wood lath. J-M Insulating Lath provides a solid surface which prevents unsightly lath marks and results in a saving in plaster and labor.

J-M DECORATIVE INSULATING BOARD

Bevel and Multiple Bevel Panels, Decorative Ceiling Panels, Bevel and Beaded Bevel Plank

JOHNS-MANVILLE DECORATIVE INSULATING BOARD is one of the most economical materials available for interior decoration. Made of compressed wood fibre, it can be applied directly to the framing, in new construction, or right over the plaster of old walls and ceilings, in remodeling work.

It is made in various sizes, with a light fabric texture, or with Glaze-Coat finish, and in a number of patterned styles, including plain and beaded Bevel Plank and Glaze-Coat or Variegated finish or textured Bevel Panels.

For special designs, the large sheets can be decorated on the job by the contractor, using a cutting tool designed particularly for this work.

New Coated Surface

The new Glaze-Coat and Variegated finishes are obtained by an exclusive process recently developed by Johns-Manville. In addition to supplying color to the surface, this process actually "irons" the board, thereby giving the surface a lustrous, light-reflecting sheen. As shown in the illustrations, the Glaze-Coat finish is a warm sand color. It requires no further treatment unless special color schemes are desired. The surface treatment eliminates the need for a priming coat under paint. The Variegated finish is a blend of four harmonizing tones. To emphasize the design, all bevels and grooves are left in the natural buff color of the board.

All J-M Decorative Insulating Board products can be used for ceilings, as well as walls. Two of them, the Decorative Ceiling Panels, and the Multiple Bevel Panels are specially suitable for ceiling work. Because they can be applied without tearing off the old plaster, these products fill a long-felt need in the remodeling field.

Ceiling of Variegated Bevel Panels

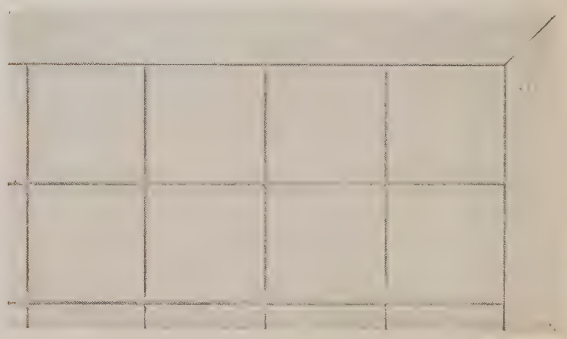
Paneled wall of standard sheets in Glaze-Coat finish

J-M Multiple Bevel Panels

J-M Multiple Bevel Panels are furnished in Glaze-Coat finish in the following sizes:

24x24 in., V-grooved 8x8 or 12x12 in.
24x48 in., V-grooved 8x8, 12x12 or 12x16 in.
16x32 in., V-grooved 16x16 in.
Thickness: ½ in. in all sizes

J-M Border Strip



J-M Border Strip, for "framing" ceiling designs, is furnished 12 in. x 8 ft. x ½ in. thick, with sanded natural finish, Glaze-Coat finish or brown finish for Variegated Blend.

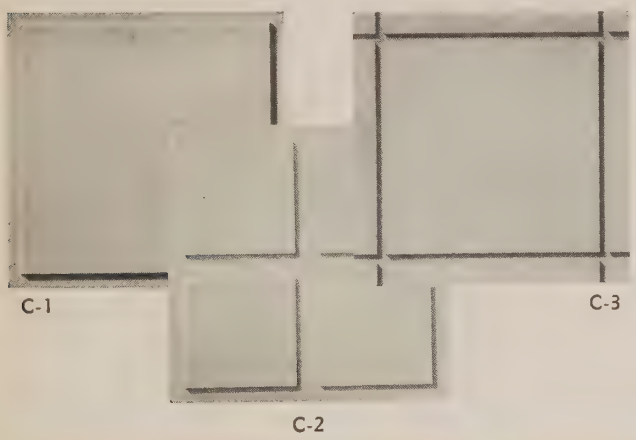
J-M Bevel Panels

J-M Bevel Panels (illustrated at right) are furnished in the following sizes: 12x12 in.; 12x24 in.; 16x16 in.; 16x32 in.; 24x24 in. and 24x48 in. (Wicker finish available only in 12x12 in.; 16x16 in. and 24x24 in.)

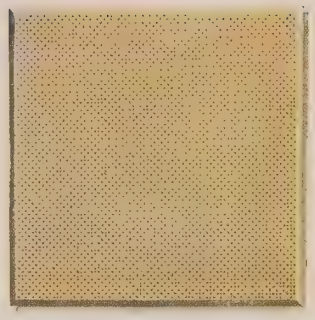
Thickness: ½ in., in all sizes.

J-M Decorative Ceiling Panels

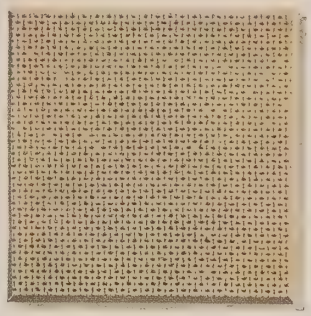
J-M Decorative Ceiling Panels are furnished in three designs: C-1, C-2 and C-3, 16x16 in., ½ in. thick, Glaze-Coat finish. Packed 60 pieces per carton.



Glaze-Coat

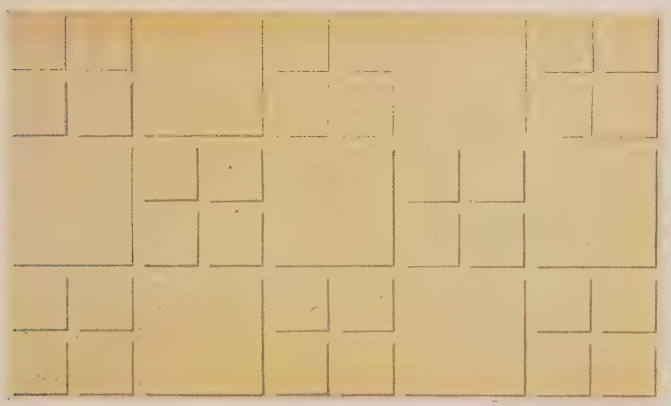


Medium Fabric

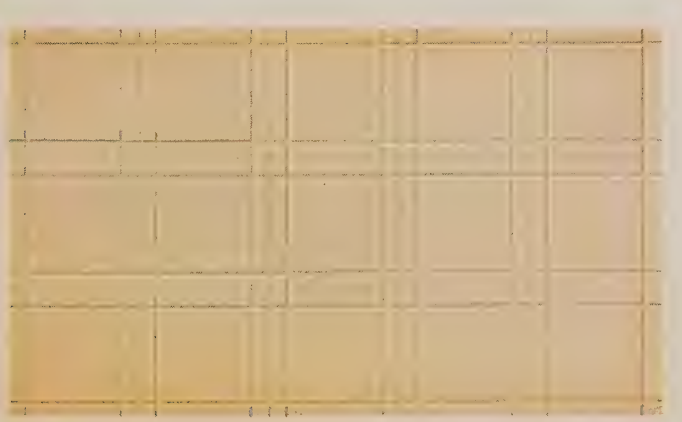


Coarse Fabric

Wicker



Combination of designs C-1 and C-2



Over-all design made with C-3

Bevel and Beaded Bevel Plank

Bevel Plank

Beaded Bevel Plank

J-M Bevel and Beaded Bevel Planks are furnished in random widths of 6, 8, 10 and 12 in. x 8, 10 and 12 ft. long, ½ in. thick. Glaze-Coat finish. 8 ft. length packed 72 sq. ft. per carton; 10 ft., 90 sq. ft.; 12 ft., 108 sq. ft.

JOHNS-MANVILLE HARD BOARD AND PANLBOARD

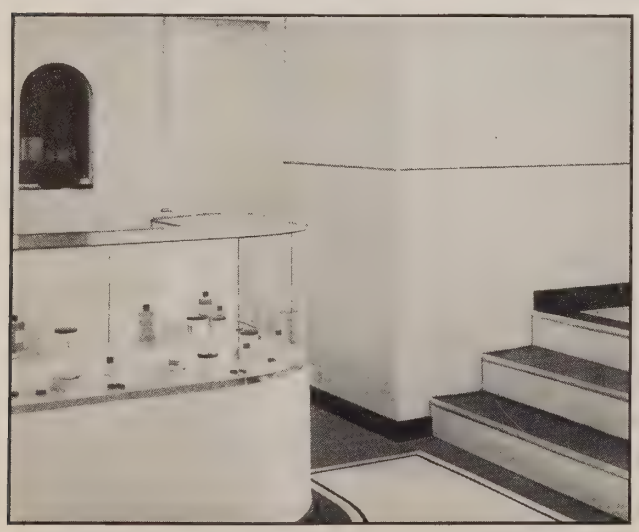
J-M Hard Board

J-M Hard Board is a grainless, knotless, all-wood fibre board, unusually strong. Its hard glossy surface is highly resistant to abrasion and wear. It will not warp, crack, split or splinter, and works easily with ordinary carpenter's tools. It has a natural, pleasing brown hue and finish which are ideal for interior decorative purposes without further treatment, although it may be painted, stained, varnished or waxed, as desired.

Tempered Hard Board is J-M Standard Hard Board impregnated with a special compound and heat-treated. The tempered board is recommended where an even harder, stronger material is desired. For fine scroll work or intricate machining, Tempered Hard Board works to even a cleaner edge than the standard material.

Hard Board was chosen for the walls of this basement room because it resists abuse and takes paint so readily

J-M Hard Board and Tempered Hard Board are furnished in 1/8 in. and 3/16 in. thicknesses, in sheets 4 ft. wide x 1, 2, 3, 4, 6, 8, 9, 10, and 12 ft. long; also in 1/4 and 5/16 in. thicknesses, in sheets 4 ft. wide x 12 ft. long. Tempered Hard Board is also available scored in 4 in. squares, in 4x12 ft. sheets, 1/8 in. thick only.



J-M Hard Board has a surface which permits a faultless painted decorative treatment

J-M Hard Board, used as wainscoting below J-M Insulating Board walls and ceiling, is not only decorative but also stands up well under service knocks

Uses—Among the practically countless uses for J-M Hard Board are the following: paneling, partitions, shelving, window displays, store counters, folding screens and table tops.

J-M Tempered Hard Board on walls and ceiling produce a luxurious harmony with the leather upholstery in this restaurant

J-M Standard and DeLuxe PanLboard

For uses where the exceptional strength and density of Hard Board are not required, Johns-Manville supplies two economical boards, known as Standard and DeLuxe PanLboard, furnished 1/4 in. thick only, 4 ft. wide x 1, 2, 3, 4, 6, 8, 9, 10 and 12 ft. long.

Standard PanLboard—A dense, tough sheet material with a hard, rich brown surface, well suited for use as a wall or ceiling finish.

DeLuxe PanLboard—Tougher and more dense than PanLboard, though not as dense as J-M Hard Board. Has a smooth, hard surface.

Both types are furnished 1/4 in. thick only, 4 ft. wide x 1, 2, 3, 4, 6, 8, 9, 10, and 12 ft. long.

JOHNS-MANVILLE

EXECUTIVE OFFICES
22 East 40th Street, NEW YORK, N. Y.

Products

JOHNS-MANVILLE ROCK WOOL HOME INSULATION.

For the following Johns-Manville products see File Index: Acoustical and Sound Isolation Materials; Asbestos and Asphalt Shingles; Built-up and Insulated Roofs; Insulating Board and Insulating Lath; Pipe Coverings and Insulations; Asphalt Tile Flooring; Corrugated and Flat Transite Sheets; Asbestos Wainscoting and Flexboard; Steeltex for plaster, stucco, and brick or stone veneer; Steeltex Floor Lath; Transite Walls for office partitions; Welded Wire Reinforcement; Flush Doors.

J-M ROCK WOOL HOME INSULATION

Johns-Manville Rock Wool Home Insulation is a light, fluffy material, actually blown from molten rock into a wool-like substance, of high efficiency for heat-proofing practically any building, old or new. It is furnished in two forms, for two specific purposes. For new buildings, where it can be placed in the walls and over the ceiling during the course of construction, it is fabricated into easily handled batts. For insulating existing houses and apartments, office buildings, hospitals, etc., it must be pneumatically installed by a blowing process and is therefore furnished in a nodulated form.

Because Rock Wool is a natural low conductor of heat, and because it prevents undesirable air circulation in the hollow spaces inside the walls, it retards heat transmission in all three ways (radiation, convection and conduction). It is a durable, rot-proof, fireproof and odorless material that will not corrode or settle.

A full wall thickness of this material is as effective as a solid stone wall 11 ft. thick in its ability to resist heat and cold. As a result when used as a home insulation, completely surrounding the occupied areas of the house, it cuts fuel costs up to 30% by keeping heat in, reduces drafts and makes upstairs' rooms easier to heat, warmer and cozier. In hottest summer weather it helps keep rooms up to 15° cooler than before insulation by retarding the penetration of unwanted heat.

J-M Type B Batts in New Construction
Installed in all exterior walls as well as across the roof or top floor ceiling

J-M Type B Rock Wool Batts in New Homes
Efficient, fireproof, economical

Johns-Manville Engineers have had a wealth of experience with this material and its application. More than 250,000 homes have been insulated with Johns-Manville Rock Wool—a background of experience in insulating both new and existing homes that is at your service in the solution of your home insulation problems.

FOR NEW CONSTRUCTION

Types B, C and Junior Batts

Type B Home Insulation is furnished in the form of a pre-fabricated batt of uniform density, both full stud thickness and semi-thick, in sizes 15 x 23 in. and 15 x 48 in. (designed to fill completely the width between studs, joists or rafters spaced on the usual 16-in. centers).

To one face of the batt is attached a waterproof, vapor-resistant paper, with a folded flange along each of the two long sides of the batt. This not only protects against the penetration of moisture from wet plaster, but also serves to resist the infiltration of moisture vapor from the house into the wall. The 1½-in. flange on each side of the batt should be folded over the stud and tacked down for protection against moisture vapor. At the same time, the flange forms a convenient method of holding the batt in place temporarily, with the fewest possible number of joints between batts.

Junior Batts are similar to regular Type B Batts, except that they have no paper backing and are furnished only in size 12 x 15 in. by full wall thickness.

Type C Home Insulation is an improved form of loose wool, in pieces 8 x 15 in. which readily fluff to full wall thickness when installed. This material, likewise, is furnished without paper backing.

Both Junior Batts and Type C can be readily pressed between studs, ceiling beams or roof rafters, and easily cut or torn with the hands to fit around windows, doorways, pipes, plumbing stacks, etc.

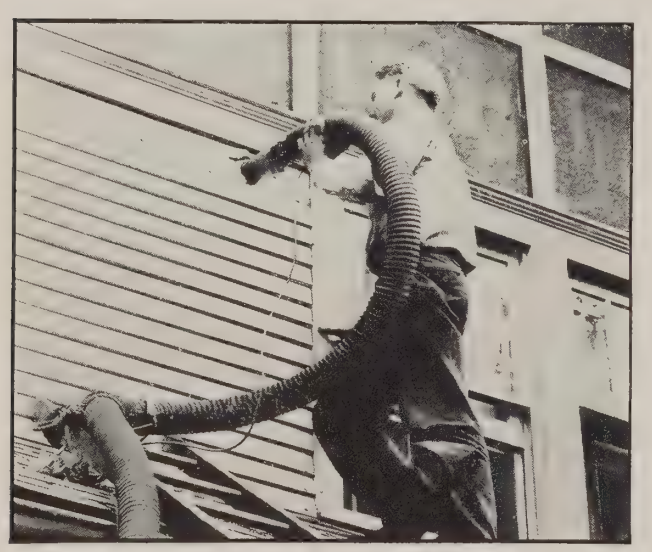
The uniform, factory-made density of Type B and Junior Batts assures the home owner a full measure of protection and summer and winter comfort, and, when properly installed, leaves no undesirable, heat-leaking voids or thin spots.

FOR EXISTING HOMES AND BUILDINGS

Type A "Blown" Rock Wool

The problem of insulating existing buildings is naturally more intricate, due to the lack of access to the hollow spaces in walls and roof, and requires a painstaking and scientific technique.

Type A Rock Wool is furnished in nodular form so that it can be readily blown through a hose under pneumatic pressure. Johns-Manville Engineers developed a simple, effective machine to accomplish this blowing operation. In the hands of J-M Approved Home Insulation Contractors, this method assures a full measure of value since the Rock Wool, when blown into the walls and attic spaces, completely fills every nook and cranny with heat-resisting material. Type A Rock Wool is thus blown by compressed air into all spaces between studs in outer walls, between beams or rafters in attic floors and elsewhere as required to surround completely the occupied area of the house. Practically any type of house can be insulated the J-M way—brick veneer, shingle, clapboard or stucco—and most of the work is done from the outside, without disturbing the interior of the house.



Walls of existing structures are insulated in this manner
Even brick and stucco offer no problem

The "blowing" is done only at low pressures (usually 2 lbs. per sq. in. or less). The pressure accomplishes two desired effects. It results in a dense, even pack (approximately 5 to 8 lbs. per cu. ft.) which assures maximum thermal efficiency; and it puts the material under an initial compression so that any subsequent vibration or building movement will not cause the insulation to sag, but rather, to expand and thus retain its full insulating value.

Junior Batts in New Construction
Top floor ceilings are rapidly insulated

In the A.S.H. & V.E. Guide, the conductivity for Rock Wool is given as 0.27 B.t.u. at a mean temperature of 90° F. and 10-lb. density At the "blown" density, this figure is conservative, since, within certain limits, conductivity is slightly reduced by lighter density.

"Blowing" entrusted only to Approved Contractors

Proper installation is as important as proper insulation, particularly when the wool is to be "blown" into an existing building. Johns-Manville entrusts this responsibility only to Approved Home Insulation Contractors and the requirements of the franchise are rigid from the standpoint of quality workmanship and procedure.

Johns-Manville Home Insulation for both new and existing homes and structures is available through a nation-wide network of building materials dealers and Approved J-M Home Insulation Contractors located throughout the United States and Canada.

J-M Home Insulation Crew "Blowing" an Occupied Frame House
Johns-Manville developed the blowing machine which first made it possible to insulate existing buildings with Rock Wool, and has insulated over 250,000 American homes by this method

WHERE TO INSTALL J-M ROCK WOOL HOME INSULATION

The purpose of insulation is to keep heat in or out of the living portion of the house. If the attic is unfinished and not used for living quarters, it is obviously better to stop the heat flow at the attic floor line instead of at the roof. The following sketches indicate where insulation should be installed for best results.

Fig. A

In a house with an unfinished attic, J-M Home Insulation may be installed in outside walls and between the top story ceiling joists, as shown in Figure A.

Where the presence of an attic floor makes the above procedure impractical, the insulation should be installed between the roof rafters, as indicated in Figure B, and between the studding in the gable ends.

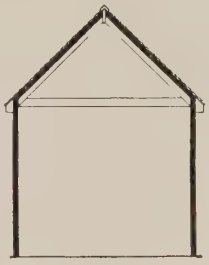


Fig. B

An attic which contains a heated room should be insulated by installing the Rock Wool between the rafters and ceiling joists, as shown in Figure C.

Where the batts are to be installed in the furred spaces behind masonry construction (which spaces must be not less than 2 in. deep), the inner face of such masonry should be waterproofed before the application of the insulation.

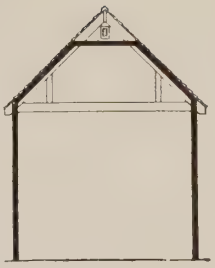


Fig. C

If a garage is attached to, or is under, the house, the Rock Wool should be installed in all walls between the garage and house, or in the ceiling of the garage.

If there are heated portions of the house projecting beyond the main walls, as, for example, over an open porch, etc., the insulation should be installed between the floor joists under all heated portions of the house which are exposed on the underside.

Attics and all similar spaces which are outside the insulated portions of the house (for example, where the insulation is installed between the ceiling beams under the attic floor) should be adequately ventilated, where modern tight roof construction is employed, by being connected with the outside air through louvers or similar means. Such louvers should be provided at opposite ends of such spaces so there will be cross ventilation. Protection against freezing should be provided on pipes and other equipment containing water which are located in these spaces.

SPECIFICATIONS FOR TYPE A HOME INSULATION (INSTALLED MECHANICALLY)

Work Included

The work contemplated under this specification shall include all materials, labor, equipment and services necessary for, and reasonably incidental to, the installation of Johns-Manville Home Insulation to insulate completely the portions of the building as shown and noted on the drawings or herein specified.

This contractor shall make all openings required to install his work and shall do all patching of such openings after his materials have been placed. He shall furnish and set all work not included by other contractors which may be required in connection with the installation of his materials.

(Insert here detailed specifications applying to the particular job.)

Work Not Included

The following work will be furnished and installed as specified under other divisions of the specification, which this contractor shall read to ascertain what is called for therein:

All metal or wood lath, insulating lath or plaster lath shall be furnished and installed as specified, on all walls which are to be insulated and finished with plaster. If metal or wood lath, such lath adjoining ceiling, window sills, etc., on all walls to be insulated shall be only temporarily secured so that the Home Insulation Contractor may readily install the material. Subsequent replacement of lath shall be by others.

Materials and Workmanship

All insulating materials placed under this specification and contract shall be those manufactured by Johns-Manville Corporation and shall bear the manufacturer's label. In confined areas, the insulation material shall be installed by the pneumatic method. In areas which are readily accessible for hand application, the insulation may be installed by that method, using Type B or Junior Batts or Type C Home Insulation. All insulating material shall be installed by the *(state name and address of the Home Insulation Company).*

METHOD OF INSTALLING TYPE B HOME INSULATION

General Instructions

Johns-Manville Type B Home Insulation is Rock Wool in convenient batt form for easy installation between open studding, rafters, or joists. (For closed, inaccessible spaces, Type A Home Insulation, applied pneumatically, is recommended.) The batt has a sheet of waterproof paper on one face extending 1½ in. on the long sides (see FigureD).

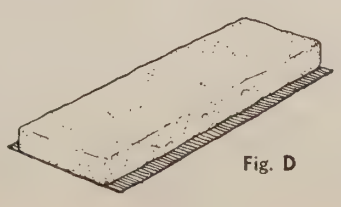


Fig. D

Care should be taken to leave no heat-leaking voids or crevices. Butt the batts, snugly together. Odd-shaped areas are insulated by cutting or tearing a part of

the Rock Wool from the full batt. Care must be taken to leave paper on the remainder of the batt to provide for the lap.

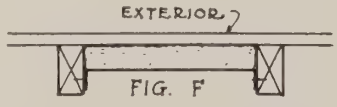
On jobs where plaster is to be applied after the installation of the batts, it is important that adequate ventilation be provided in the interior of the building to facilitate drying.

Directions for Unpacking—Place the carton on the floor with the side marked "top" facing up. Slit the carton and, with flaps opened, turn carton over, gently emptying contents. Slide fingers under the sides and near the far end of the batt, with thumbs on top of paper backing. Grasp firmly both the rock wool and paper backing, lift from pile and set in place.

Installation

Between Studs—In insulating exterior walls, the batts should be installed between the studs from the top of the foundation to the roof, placed with the unpapered side against the sheathing. Where Ful-Thik Batts are used in 4-in. studding, the paper flaps should be tacked to the face of the studs (see Fig. E).

FIG. E
FUL-THIK BATTS BETWEEN 4" STUDS



SEMI-THIK BATTS BETWEEN 4" STUDS OR FUL-THIK BATTS BETWEEN STUDS EXCEEDING 4" IN DEPTH

Where studding is more than 4 in., or where Semi-Thik Batts are used between 4-in. studs, the paper flaps should be turned out on the sides of the studs and tacked in place (see Fig. F).

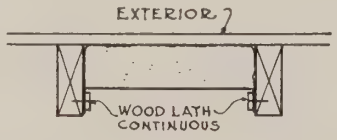
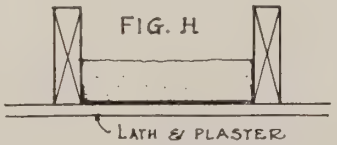


FIG. G
FUL-THIK BATTS BETWEEN RAFTERS EXCEEDING 4" IN DEPTH

Between Ceiling Joists—The batts should be laid with paper side down between ceiling joists on top of lath or plaster-base (see Fig. H). If lathing is not in place, or if it is impossible to get above ceiling joists, the batts can be placed from the underside with the paper flaps turned out on the underside of the joists and tacked in place. (See Fig. E.)



FUL-THIK BATTS BETWEEN CEILING JOISTS

The junction between the ceiling and exterior walls should be thoroughly insulated by carrying the ceiling batts to the inside face of the outside sheathing.

Between Roof Rafters—The batts should be installed between the rafters, with the unpapered side against the sheathing or shingle lath, etc. The paper flaps should be turned out on the sides of the rafters and continuous wood strips applied over the flaps and secured as shown in Fig. G.

(If rafters are 4 in., the Ful-Thik Batts are installed as shown in Fig. E, except that the wood strips are applied over the paper flaps.)

Fastening—A convenient method of securing the paper is to use a "Bostitch H-2 Hammer", which feeds staples automatically. If this is not available, ordinary carpet tacks may be used for fastening.

Maximum spacing of fasteners should be 6 in. center to center. On face of studs, joists or rafters which are to receive lath, etc., only sufficient fasteners to hold the paper temporarily in place need be used.

METHOD OF INSTALLING JUNIOR BATTS AND TYPE C HOME INSULATION

General Instructions

Johns-Manville Junior Batts are Rock Wool batts similar to Type B, except that they have no paper backing and are furnished 12x15 in. by full wall thickness. Junior Batts are shipped 16 batts per carton, providing 20 sq. ft. net area. Type C Home insulation is furnished in individual pieces 8x15 in. in size, without paper backing, and is shipped in bags containing 18 pieces with a net surface area of 15 sq. ft. Both Junior Batts and Type C are packed with paper separators between each layer to facilitate handling.

Directions for Unpacking—*Junior Batts*—Place the carton on the floor with the side marked "top" turned up. Slit the carton, open the flaps and turn the carton over, gently emptying the entire contents at once. The paper separators will cause sufficient slip to enable a single batt to be readily lifted.

Type C Pieces—Slit the top of the bag and empty gently, drawing the bag slightly to one side at the same time. As the pieces slide out, they will separate and be easy to handle. Before applying, each end of the piece should be grasped and the piece given a slight shake, which will fluff it up to the full thickness of the studding.

Installation

General—Batts or pieces must be butted snugly together to avoid leaving heat-leaking crevices or voids. Odd-shaped spaces are filled by breaking the batts or pieces to proper size. When Type C pieces are applied where the stud or rafter spacing is 24 in. on centers, one piece should be placed horizontally and one vertically, which will fill the space properly.

Vapor-sealing—A membrane of J-M Vaporseal Paper should be installed over the insulation, applied directly to inside faces of framing members (studs, joists or rafters), this paper to be placed between the insulation and heated or occupied portions of the building. The vaporseal paper (furnished 36 in. wide) should be run parallel to the framing members, in continuous lengths from plate to sill, etc., with all joints made to occur over framing members. Adjacent lengths should be lapped not less than 2 in. and should be secured with large-head tacks, spaced on not greater than 12-in. centers. This vaporseal paper should not be stretched tightly between the framing members but should be fastened slackly so as not to interfere with the keying of the plaster.

Insulation Support—If joist spaces are inaccessible from above, or if no interior finish treatment is planned, nails should be driven into the framing members (joists or rafters) staggered on 8-in. centers, and a soft-annealed, galvanized iron wire laced between the nails to support the batts or pieces as they are put in place. The vaporseal paper membrane should then be installed.

Exterior Protection—Building paper that is waterproof, but not vapor-proof, should be used over exterior sheathing.

Installation at Floors—In unfinished attic floors, the vapor-proof membrane should be applied to the underside of the joists and plaster base, and plaster then applied. When the plaster has set, the insulation (Junior Batts or Type C pieces) should be installed between joists from above.

Installation between Roof Rafters of Dormers or Bay Windows—As the vaporseal membrane is installed towards the ridge of the main roof, batts or pieces should be filled in between the rafters at these points. Plaster base and plaster, or other interior finish, should then be installed.

JOHNS-MANVILLE

EXECUTIVE OFFICES
22 East 40th Street, NEW YORK, N. Y.

Member of The Producers' Council, Inc.

Products

J-M Steeltex for Plaster, Stucco and Brick or Stone Veneer. *(Other Steeltex products will be found in our catalog in the Concrete Reinforcement section of this edition.)*

For the following Johns-Manville products, see File Index: Acoustical Treatment; Transite Walls; Asbestos and Asphalt Shingles; Built-up Roofs; Insulated Roofs; Transite, Corrugated and Flat; Home Insulation; Insulating Board; Pipe Coverings and Insulations; Asphalt Tile Flooring; Asbestos Wainscoting and Flexboard; Flush Doors.

J-M STEELTEX

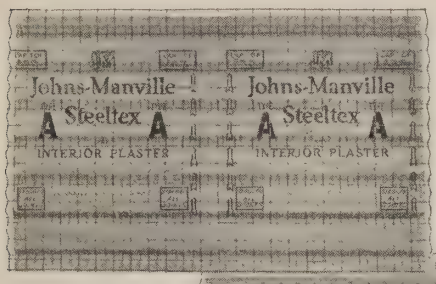
For Plaster—For Stucco—For Brick or Stone Veneer

To provide a better method of reinforcing plastic building materials, Johns-Manville offers Steeltex, in styles for interior or exterior application. The use of Steeltex does not involve a single change in building methods and is no more costly than the less satisfactory materials formerly employed. Many years of service have proved its structural value, fire-resisting qualities, durability, and economy and speed in erection.

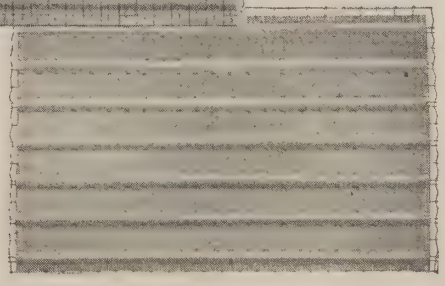
J-M STEELTEX FOR PLASTER

Steeltex for Plaster, Type A combines two functions in a single material. The reinforcing element consists of a network of 16-gauge cold-drawn galvanized copper-bearing steel wires welded on 2-in. centers. This square mesh or fabric becomes automatically embedded in the plaster, giving effective reinforcement at all points, distributing strains equally in all directions and reducing plaster cracking hazards to the minimum.

Combined integrally with the welded wire reinforcing fabric is a fibrous absorbent backing, to which the mortar is instantly bonded and firmly adheres during the curing process. As the plaster sets, both the backing and wire fabric become an integral part of the plaster slab, resulting in a one-piece steel-reinforced construction exactly like reinforced concrete in principle.



Front of Steeltex, Type A Sheet

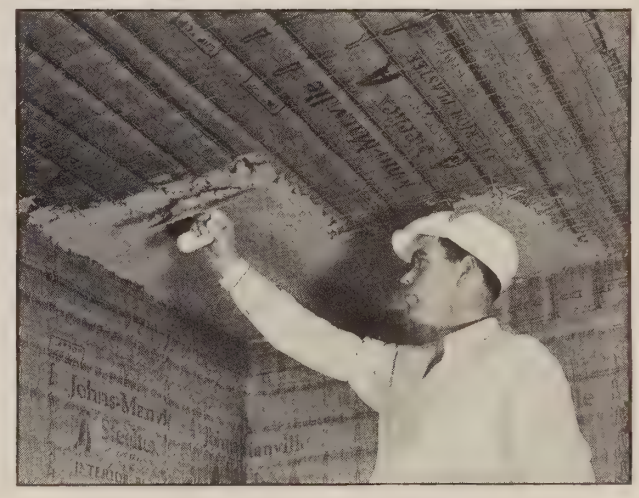


Back of Steeltex, Type A Sheet

Note rib stiffeners

Steeltex for Plaster, Type A is furnished in convenient size sheets (30½ x 49 in.), which are nailed to the studding and then plastered in the regular way. The sheets have a board-like rigidity, which eliminates deflection or sag and insures rapid, easy application and maximum plaster coverage. Since all of the mortar functions in the slab, no plaster is wasted in the formation of "keys." In addition to these advantages, the seven truss-like rib stiffeners which run the length of each Steeltex sheet provide a furring effect which eliminates stud and joist marks on the finished plaster job and makes possible a "floating wall" action which tends to minimize the destructive effects of stresses and strains caused by framing shrinkage.

Its ease of application and economy, combined with its structural advantages, adapt Steeltex to virtually all types of interior plaster work. It goes up rapidly on average work and is equally suited to cove or curved ceilings, corners, niches, arches and other unusual decorative wall shapes.



Steeltex for Plaster, Type A

Steeltex for Plaster, Type A gives effective reinforcement, distributing strains equally and reducing plaster cracking hazard to the minimum

Complete individual specifications for any application of Steeltex for Plaster, Type A may be had on request. For the convenience of the architect and others, short form specifications for usual uses are given here.

1. Lathing Specification for Ceilings and Sidewalls over Wood Framing

All interior walls, partitions and ceilings, where specified and designated plaster, shall be lathed with J-M Steeltex for Plaster, Type A (2 x 2-in. mesh, 16-gauge, cold-drawn, electrically-welded, galvanized copper-bearing steel wire, self-furring fabric, to which a tough fibrous backing is secured by means of 18-gauge stitch wires on 2-in. centers, with stiffening ribs formed in the fabric on not more than 5-in. centers).

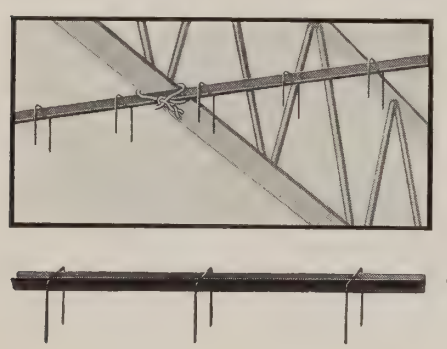
The Steeltex sheets shall be attached to ceilings and sidewalls with Steeltex Type A Lath Nails (11-gauge by 1⅝ in. long) driven to not less than 1-in. penetration into each joist or stud at every rib so as to engage the horizontal wire welded at the center of the rib.

All joints shall be staggered on both ceilings and sidewalls, so that four corners of adjacent sheets shall not occur at any one place. All laps shall be at least 1 in. and made so that wire laps against wire. Lathing of ceiling shall start at a corner, bending the first and all succeeding sheets of Steeltex at the ceiling angle to make a drop or apron down the sidewall measuring at least 4 in. Sidewalls shall be lathed from ceiling down so that all horizontal laps are made over the upper sheets. Steeltex shall be bent around all corners in such manner as to prevent joints at the juncture of walls. When wood framing abuts masonry at ceiling line or on sidewalls, the lath shall be butted into the corners and J-M Corner Reinforcing applied. All plaster shall be applied to full ¾-in. grounds.

Note: Other types of nails may be used, provided they penetrate the wood framing member a full 1 in. and securely engage the reinforcing wire—such as 4d common or box nails (bent over the wire), 1½-in. blued hook-head nails, 1¼-in. blued ⅞-in.-head plaster board nails and 1¼-in. blued metal lath staples.

Steeltex Is Easily Attached to Steel Framing

Over standard steel framing, joists, etc., Steeltex for Plaster, Type A is applied by means of the Steeltex Attachment Bar. (Where the spacing of the steel framing is greater than 36 in. on centers, the ¾-in. Steeltex Pronged Channel is used.) The Attachment Bar is either tied or clipped to the steel members and the



Steeltex Attachment Bar

For the open web type of joist, the attachment bar is saddle-tied with ordinary 14-gauge tie wires. This provides a rapid method of lath application over the steel framework. The U-shaped prongs are spot-welded to the bar every 5 inches

Steeltex sheets are then applied by pushing them against the galvanized wire prongs of the bars until these prongs puncture the Steeltex backing. The prongs are then bent over to engage the reinforcing mesh, completing a fast and economical method of attachment.

2. Lathing Specification for Ceilings under Steel Joists

J-M Steeltex for Plaster, Type A (2 x 2-in. mesh, 16-gauge, cold-drawn, electrically-welded, galvanized copper-bearing steel wire, self-furring fabric to which a tough, fibrous backing is secured by means of 18-gauge stitch wires on 2-in. centers with stiffening ribs formed in the fabric on not more than 5-in. centers) shall be attached to steel joists with Steeltex V-shaped Attachment Bars or ¾-in. Steeltex Pronged Channels (19-gauge Attachment Bars where spacing of joists is less than 24 in.; 16-gauge Bars where spacing is 24 to 36 in.; ¾-in. Steeltex Pronged Channels where spacing is over 36 in.).

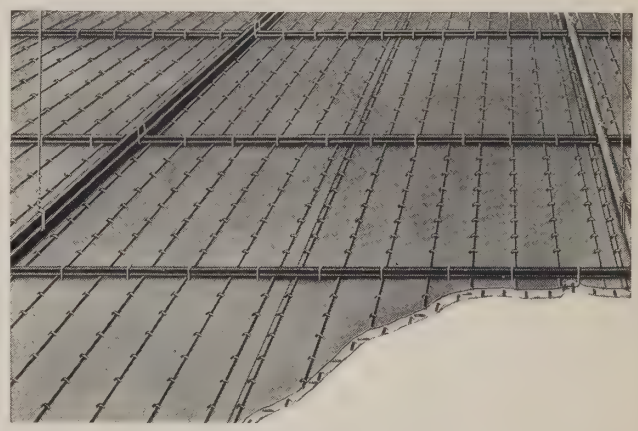
Attachment Bars or Channels shall be placed at right angles to the steel joists and attached to the flanges of rolled-section joists with clips which hook over the flange of the beam; and to the bottom chord of bar joists by tying with a double strand of 14-gauge galvanized annealed wire. In all cases, Attachment Bars or Channels shall be spaced not over 16 in.

Steeltex for Plaster, Type A shall be applied with ribs at right angles to the Attachment Bars or Channels, starting at the corner of the ceiling and bending the first and all succeeding sheets of Steeltex at the ceiling angle to provide a drop or apron down the sidewall measuring at least 4 in. The Steeltex shall be secured to the Attachment Bars or Channels by pushing the lath against the prongs so that they puncture the backing. When the lath rests against the Attachment Bar or Channel, the prongs shall be bent over the reinforcing wires of the lath and their ends pressed in firmly. When ceilings adjoin masonry walls, the lath shall be butted into the corners and J-M Corner Reinforcing applied.

Joints shall be staggered so that the four corners of adjacent sheets shall not occur at any one place. End laps shall be made over Attachment Bars or Channels only, and not between, and shall be 1 in. Consideration shall be given this requirement when attaching Bars or Channels, so that they will be so spaced as to permit the application of the Steeltex lath without cutting the sheets. Side laps shall be 1 in.

Steeltex for Suspended Ceilings

Complete suspended ceiling systems are also easily constructed with Steeltex, runner channels being first hung by heavy gauge wire the required distance from the floor slab. To these runner channels, ¾-in. Steeltex Pronged Channels, provided with prongs for attaching the Steeltex sheets, are then saddle-tied at right angles. In addition to its ease of erection and structural strength, this type of ceiling is light in weight and adaptable to any contour.



Steeltex Suspended Ceiling
Using 1½-in. runner channels and ¾-in. Steeltex Pronged Channels

3. Erecting and Lathing Specification for Suspended Ceilings

Plastered ceilings suspended from flat slab, arches, pan system, or other similar floor construction shall be constructed with J-M Steeltex for Plaster, Type A (2 x 2-in. mesh, 16-gauge, cold-drawn, electrically-welded, galvanized copper-bearing steel wire, self-furring fabric to which a tough fibrous backing is secured by means of 18-gauge stitch wires on 2-in. centers, with stiffening ribs formed in the fabric on not more than 5-in. centers) applied to ¾-in. Steeltex Pronged Channels.

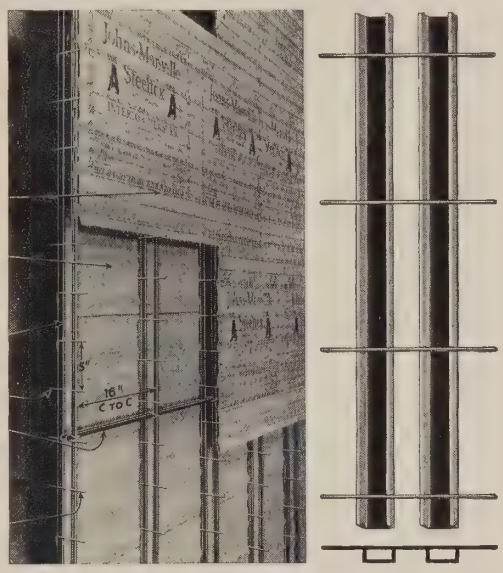
The ¾-in. Steeltex Channels shall be erected on 16-in. centers at right angles to 1½-in. runner channels weighing not less than 442 lbs. per 1000 lin. ft., and securely saddle-tied to them, at each crossing, with three or more strands of 16-gauge galvanized annealed wire. Runner channels shall be spaced on not more than 4-ft. centers and shall be suspended the required distance from the floor slab by means of 8-gauge, or heavier, galvanized wire hangers to which the runner channels are secured by three twists of the hanger wire; or by means of ⅛ x 1-in. flat steel hangers punched at proper position to permit runner channels to be bolted to them with not less than ⅜-in. diameter bolts; or by means of ⅜-in. round, mild steel rods to which the runner channels are secured by two twists of the rod hanger. All hangers shall be of sufficient length to provide suitable anchorage of the upper ends to beams, or in the concrete or tile. Hangers may be attached to terra cotta floors by installation at tile joints during erection, or, when tile is already in place, by boring holes through the tile and securing the hanger on the upper side with a steel rod or toggle bolt. Hangers suspended from concrete beams or arches shall be placed before the concrete is poured. Hangers may be attached directly to steel beams, or purlins, only when these members are spaced not more than 4 ft. on centers.

Steeltex for Plaster, Type A shall be placed with ribs at right angles to the ¾-in. Steeltex Pronged Channels, starting at the corner of the ceiling, and secured to the Channels by pushing the lath against the prongs so that they puncture the backing. When the lath rests against the Channel, the prongs shall be bent over the reinforcing wires of the lath and their ends pressed in firmly.

Joints shall be staggered so that four corners of adjacent sheets shall not occur at any one place. End laps shall be made on Channels only, and not between, and shall be 1 in. Side laps shall be 1 in.

Steeltex Hollow Partitions

Hollow partitions are easily and economically erected with Steeltex, using the Steeltex Partition Stud illustrated below. Welded to the two channels of this stud at 5-in. intervals are galvanized wire prongs which puncture the Steeltex backing and are bent over to engage the reinforcing mesh and secure the sheets in place. Application of plaster to ⅞-in. grounds on both faces forms a 4-in. partition which is light in weight, yet rigid, and unusually effective from the standpoint of sound deadening and acoustics.



Detail showing construction of 4-in. Steeltex Partition

Using Steeltex for Plaster, Type A and the 2¼-in. Steeltex Partition Stud which is formed of two ¾-in. channels, to which are electrically welded galvanized annealed wire prongs. Wider studs, up to the maximum of 5½ in., can be supplied on special order

Corners of such partitions are easily formed by bending the ribs of the Steeltex to the proper angle.

4. Erecting and Lathing Specification for 4-in. Steeltex Hollow Partitions

4-in. Steeltex Hollow Partitions shall be constructed with 2¼-in. J-M Steeltex Studs (steel studs fabricated by joining together two lines of ¾-in. hot-rolled channels with 12½-in. gauge galvanized annealed wire welded across the legs of each channel at 5-in. intervals, the wire prongs being at least 4¾ in. long and extending not less than 1¼ in. beyond each edge of the stud, which has an over-all depth of 2¼-in.). Steeltex Studs shall be spaced on 16-in. centers for partition heights up to and including 9 ft.; on 12-in. centers for partition heights up to and including 12 ft.; and on 8-in. centers for partition heights exceeding 12 ft. Maximum stud height is 16 ft.

All partitions shall be permanently braced with ¾-in. channels, weighing not less than 332 lbs. per 1000 lin. ft., placed horizontally within the partition and securely wire-tied to each stud at all points of intersection with the studs. When the partition is 9 ft. or less in height, two lines of horizontal bracing channel shall be used, at distances of 3 and 5 ft. from the floor line. When the partition is from 9 ft. to and including 12 ft. in height, three lines of horizontal bracing channel shall be used, at distances of 3, 5 and 7 ft. from the floor line. When the partition exceeds 12 ft. in height, the horizontal bracing channels shall be located at distances of 3, 5, 7 and 10 ft. from the floor line, with additional braces at 3-ft. intervals to within 3 ft. of the ceiling line.

The 2¼-in. J-M Steeltex Studs shall be secured to floor and ceiling bearings by runner channels, nailing, ceiling and floor brackets, or holes cut in concrete floor and in ceiling.

When the partition studs have been erected plumb and true, Johns-Manville Steeltex for Plaster, Type A (2 x 2-in. mesh, 16-gauge, cold-drawn, electrically-welded, galvanized, copper-bearing steel wire, self-furring fabric, to which a tough, fibrous backing is secured by means of 18-gauge stitch wires on 2-in. centers, with stiffening ribs formed in the fabric on not more than 5-in. centers) shall be applied on both sides of the studs, starting at the ceiling and lathing down to the floor, so that all horizontal laps are made over the bottom edge of the upper sheets. Ribs of the lath shall be at right angles to the studs. The Steeltex sheets shall be attached to the studs by pushing the lath against the prongs so that they puncture the backing. When the lath rests against the studs, the prongs shall be bent over the reinforcing wires of the lath and their ends pressed in firmly.

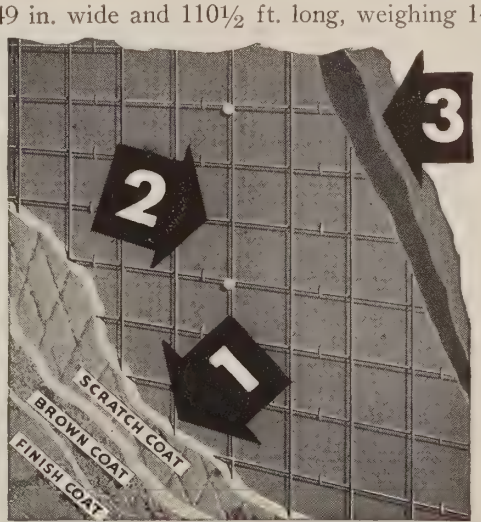
Joints of the lath shall be staggered so that four corners of adjacent sheets shall not occur at any one place. End laps shall be made on studs only, and not between, and shall be 1 in. Side laps shall be 1 in. Lath shall be bent at right angles to brick or masonry walls, with the selvage edge of the sheets nailed into joints or the concrete.

J-M STEELTEX FOR STUCCO

More perhaps than any other plastic building material, portland cement stucco requires proper reinforcement. Without it, the low tensile strength of the stucco slab is inadequate to resist severe structural stresses, and cracking is almost certain to result.

Steeltex for Stucco derives its reinforcing effectiveness from a network of heavily galvanized copper-bearing steel wire fabric as in Steeltex for Plaster, except that the wire is 14 instead of 16-gauge and the waterproof membrane backing is composed of a double layer of tough fibrous paper, with the layers cemented to each other and further waterproofed by a layer of waterproof mastic compound between. The backing is fastened to the reinforcing wires by crimped stitch wires which let it fall away from the steel reinforcement ⅜ in., thus insuring the complete embedment of the steel wires in the stucco slab. The backing, in addition to providing a suitable base to receive and hold the wet mortar until it has set, furnishes a seal against moisture penetration and air-infiltration.

J-M Steeltex for Stucco is furnished in 50-sq. yd. rolls, 49 in. wide and 110½ ft. long, weighing 142 lbs.



Diagrammatic Steeltex for Stucco built-up wall section

(1) Monolithic stucco slab. (2) Reinforcing fabric. (3) Waterproof backing

per roll. Also supplied in sheets 49x52 in., shipped in bundles of 50 sq. yds. (26 sheets) weighing 160 lbs. For proper application, approximately 15 Steeltex Furring Nails are necessary per yard.

For new construction, Steeltex for Stucco is nailed either directly to the studs or over sheathing. It is also admirably suited to the modernization of old homes by nailing the Steeltex directly over the old clapboard or shingled sidewalls and then applying the stucco.

5. Lathing Specification for Stucco over Wood Framing

All exterior walls where specified and designated stucco shall be lathed with J-M Steeltex for Stucco (2 x 2-in. mesh, 14-gauge cold-drawn, electrically-welded, galvanized copper-bearing steel wire fabric, to which is secured a tough, double-layer fibrous backing with a mastic filler between the layers).

Steeltex for Stucco shall be applied direct to studs or over sheathing, or over old siding in the case of remodeling, and nailed to bearings. Steeltex for Stucco shall be nailed over every stud horizontally across the building, and every 6 in. vertically on the stud. Steeltex Furring Nails shall be placed under the horizontal wires at a corner of the mesh and toe-nailed to stretch the Steeltex taut automatically. Also nail around all door and window openings at 6-in. intervals.

The first width of Steeltex for Stucco shall be started at the sill line and extend around the building. The second width shall lap the first at least 1 in. (shingle fashion), lapping so that wire laps against wire. Where vertical joints occur, the same method of lapping shall be employed, but laps shall be 1 in.

Steeltex for Stucco shall be carried up to the openings or under the moulding of all doors and windows. In no case shall vertical joints be joined at corners, under or over window or door openings, or between studs, where applied direct to studs. In no case shall Steeltex for Stucco be butted, and in all cases the wire reinforcing must be continuous across all laps and embedded in the scratch coat of stucco.

Steeltex for Stucco in rolls is recommended applied direct to studs. For such construction, all horizontal laps midway between studs are secured with one tie of 18-gauge galvanized tie wire. Two ties are used between studs if studding is on 24-in. centers.

If Steeltex for Stucco in sheets is used, all laps shall be at least ¾ in. and the sheets placed so that the short dimension of the sheets extends across the studs.

In every case, the stucco placed over Steeltex for Stucco shall be applied in three coats to a total thickness of at least ⅞ in., in accordance with the specification of the Portland Cement Association.

For added protection at the corners of window and door openings remove the backing from an 8 x 12-in. strip of Steeltex and apply the wire mesh diagonally at all corners to provide double reinforcing.

J-M STEELTEX FOR BRICK OR STONE VENEER (38-16)

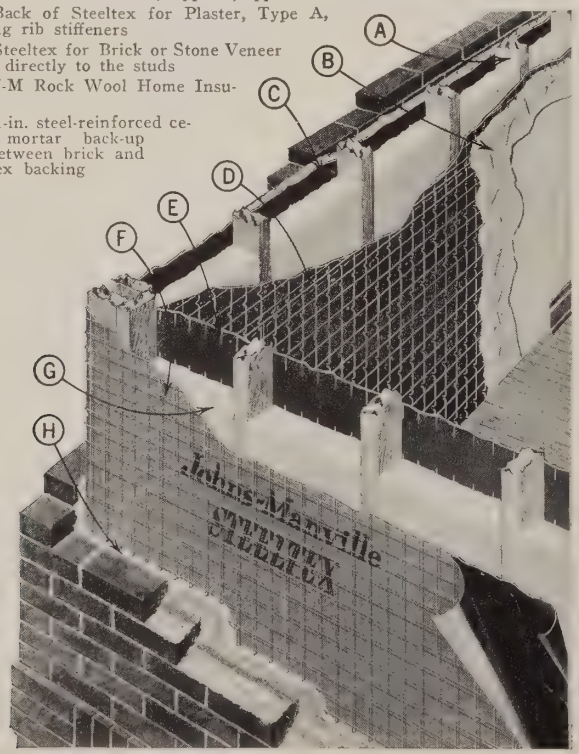
J-M Steeltex for Brick or Stone Veneer (38-16) is exactly like Steeltex for Stucco except that the galvanized steel reinforcing fabric is made of 16-gauge instead of 14-gauge copper-bearing steel wire.

It is furnished in rolls 49 in. wide and 110½ ft. long, containing 50 square yards and weighing 107 lbs.

Construction of a brick or stone veneer wall with Steeltex requires no radical change in building methods. The Steeltex is first nailed direct to the wood studding, shingle fashion, as in the case of stucco construction. The brick or stone is then laid up approximately 1 in. from the framework. In place of the customary method of tying to the framework, however, this 1-in. space is filled in with bricklayer's cement-mortar as each course is laid. The mortar flows around the Steeltex reinforcing wires, completely embedding them.

The result is a monolithic slab of brick or stone and steel-reinforced cement-mortar, bonded together to impart elements of strength and stability not found in ordinary veneer construction, and thoroughly sealed against moisture penetration by the heavy waterproof Steeltex backing.

A. Wood studding, protected against fire on all four sides by J-M Rock Wool Home Insulation and steel-reinforced cement mortar and plaster
B. Interior plaster applied over Steeltex for Plaster, Type A
C. Waterproof backing of Steeltex for Brick or Stone Veneer
D. Steeltex for Plaster, Type A, applied to studs
E. Back of Steeltex for Plaster, Type A, showing rib stiffeners
F. Steeltex for Brick or Stone Veneer nailed directly to the studs
G. J-M Rock Wool Home Insulation
H. 1-in. steel-reinforced cement mortar back-up slab between brick and Steeltex backing



A Structural Wall That Will Endure

At the left is shown an interesting example of how two Steeltex products—Steeltex for Brick or Stone Veneer and Steeltex for Plaster, Type A—supplemented by Johns-Manville Rock Wool Home Insulation between the studs, can be used to provide a wall of greater structural strength, comfort, fire-safety and water-tightness for modern home construction.

6. Specification for Sheathing over Wood Framing

All exterior walls for brick or stone veneering over wood framing shall be sheathed with Steeltex for Brick or Stone Veneer (38-16) (2x2-in. mesh, cold-drawn, electrically-welded, galvanized copper-bearing steel wire fabric, to which is secured a tough, double-layer, fibrous backing with a mastic filler between the layers).

The first width of Steeltex 38-16 sheathing shall be started at the sill line and extend around the building. The second width shall lap the first 1 in. (shingle fashion), lapping wire to wire with no fibrous backing in between. Where vertical joints occur, the same method of lapping shall be employed, and end laps shall be 1 in.

Steeltex 38-16 shall be nailed with galvanized nails (preferably 11-gauge 1½-in. nails, with a hook head) at every third wire, or on 6-in. centers, to each stud and shall be securely nailed over every other wire, or on 4-in. centers, around all openings.

JOHNS-MANVILLE

EXECUTIVE OFFICES
22 E. 40th Street
NEW YORK, N. Y.

Products

JOHNS-MANVILLE ASPHALT TILE FLOORING.

For the following Johns-Manville products, see File Index: Insulating Board; Acoustical and Sound Isolation Materials; Transite, Flat and Corrugated; Home Insulation; Built-up and Insulated Roofs; Asbestos and Asphalt Shingles; Pipe Covering and Insulation; Asbestos Flexboard and Asbestos Wainscoting; Steeltex for Plaster, Stucco and Brick Veneer; Steeltex Floor Lath; Welded Wire Reinforcement; Transite Walls for office partitions; Flush Doors.

J-M TYPE A AND HEAVY DUTY ASPHALT TILE FLOORING

Johns-Manville Type A Asphalt Tile Flooring, composed of rectangular units of various sizes and colors, provides a resilient, quiet, decorative, long-wearing floor, applicable over practically any smooth and firm underfloor, and particularly adapted to service in every type of commercial or public building.

With the great variety of plain and marbleized colors and innumerable patterns possible, any desired effect is easily obtained — bright and cheerful, dark and rich, gay or unobtrusive. The harmony of the extensive line of colors permits them to be used together with the utmost freedom in any pattern or combination selected, with the assurance that the resulting effect will be pleasing to the eye and perfectly suitable, whatever the scheme of interior decoration or location.

Since the mottling of no two units in the same color combination is exactly alike, a floor laid with J-M Marbleized Asphalt Tile shows a freedom from repetition which is usually lacking in marbleized designs. Borders and feature strips are also available to make possible an almost limitless number of distinctive flooring designs.

The first cost of J-M Asphalt Tile compares favorably with other resilient floor coverings of the same thickness, while their toughness, resistance to abrasion and maintained durability under the hardest usage has been proved in thousands of installations over many years of service.

DESIGN NO. 15
FIELD OF NO. 123 - 6X12; NO. 103 - 3X6; NO. 24 - 3X3; NO. 22 - 6X6. FEATURE STRIP OF NO. 24 - 3X24. BORDER OF NO. 1.

J-M Asphalt Tile Flooring, when laid, is fire-retardant and has been officially approved for use in fireproof buildings in many large cities throughout the country, notably New York where the fire laws are stringent.

The resiliency of J-M Asphalt Tile makes for quiet foot traffic. It is also a safe floor, because the surface does not wear slippery. It is odorless, non-absorbent and will not originate dust. This, with its ease of cleaning, make it particularly adapted to locations where high sanitary standards must be maintained, such as in hospitals, schools and sanitariums. The units do not buckle, curl or oxidize on contact with water and proper cleaning agent. Barring exceptional abuse, J-M Asphalt Tile require no attention or expense for maintenance beyond ordinary cleaning.

When excessive abuse or severe accident makes a repair necessary, new units can be easily inserted to replace the old. Moreover, the pattern can be readily extended as partition removals or office changes require.

DESIGN NO. 18
FIELD OF NO. 103 - 6 X 6; NO. 123 - 3 X 6 AND 3 X 3; NO. 119 - 3 X 3. FEATURE STRIP OF NO. 123 - 1½ X 24 BORDER OF NO. 2.

DESIGN NO. 8
FIELD OF NO. 121 - 6 X 6; NO. 120 - 3 X 6; NO. 111 - 3 X 3. FEATURE STRIP OF NO. 120 - 3 X 24. BORDER OF NO. 111.

DESIGN NO. 7
FIELD OF NO. 12 - 6 X 6; NO. 124 - 3 X 6 AND 3 X 3; NO. 123 - 3 X 3. BORDER OF NO. 124.

DESIGN NO. 13
FIELD OF NO. 103 - 6 X 6; NO. 119 - 6 X 6; NO. 121 - 6 X 6; NO. 123 - 6 X 6. FEATURE STRIP OF NO. 12 - 1½ X 24. BORDER OF NO. 1.

J-M Type A Asphalt Tile

Type A Asphalt Tile are manufactured in the following sizes and colors:

⅛ in. and 3⁄16 in. thick			*¼ in. thick*
3 x 3 in.	6 x 12 in.	12 x 12 in.	9 x 9 in.
3 x 6 in.	9 x 9 in.	12 x 24 in.	9 x 12 in.
6 x 6 in.	9 x 18 in.	18 x 24 in.	12 x 12 in.
			12 x 24 in.

Plain Colors	*Marbleized Colors*
No. 1 Black	No. 101 White on Ivy Green
No. 2 Mahogany	No. 102 White on Black
No. 3 Red	No. 103 White, Yellow on Rose
No. 4 Brown	No. 104 Terra Cotta, Yellow on Mahogany
No. 5 Olive Green	No. 106 Black, White, Green on Gray
No. 11 Tan	No. 107 White on Green
No. 12 Terra Cotta	No. 108 Buff on Mahogany
No. 13 Ivy Green	No. 111 Black, White on Gray
No. 14 French Gray	No. 112 White, Green on Black
No. 21 Buff	No. 115 Ivy Green, White on Green
No. 22 Rose Taupe	No. 116 Dark Brown, Orange Gold on Cream
No. 23 Emerald	No. 118 Red, Gold on Black
No. 24 Pearl Gray	No. 119 White, Gold on Red
No. 31 Dark Blue	No. 120 White, Green on Olive Green
No. 32 Light Blue	No. 121 White, Gold on Terra Cotta
	No. 122 White on Brown
	No. 123 Brown, White on Beige
	No. 124 White, Blue on Dark Blue
	No. 125 White, Blue on Light Blue

Weight per square foot: ¼-in. thick—2.5 lbs.; 3⁄16-in. thick—1.8 lbs.; ⅛-in. thick—1.2 lbs.

J-M Flexible Composition Base is furnished in black, brown and mahogany only, 6x36 in., ⅛-in. thick, with floor lip either ⅛, 3⁄16 or ¼ in. thick, for use with Type A Asphalt Tile. Other materials ordinarily used to form a base may also be used with J-M Asphalt Tile Flooring.

J-M Heavy Duty Asphalt Tile

J-M Heavy Duty Asphalt Tile will give more satisfactory service than other resilient floor surfacings where exposed to exceptionally heavy traffic, too severe for ordinary types of resilient flooring.

Heavy Duty Asphalt Tile have an additional advantage, from a construction standpoint, in that they can be applied directly to smooth wood sub-floors without the leveling course usually necessary.

Furnished in ¼-in. thickness only, in the following colors:

Plain Colors	*Marbleized Colors*
Black	No. 203 Gray on Black
Red	No. 204 Green on Black
Mahogany	

Standard sizes: 9x9, 9x18, 12x12 and 12x24 in.

Weight per square foot, approximately 2.5 lbs.

Approved Flooring Contractors

As a satisfactory job results only when good materials are correctly laid, Johns-Manville has appointed Approved Flooring Contractors throughout the country, basing these appointments on thoroughness of workmanship and financial responsibility.


118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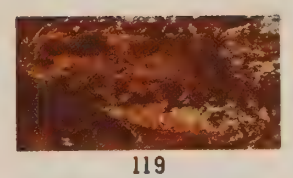
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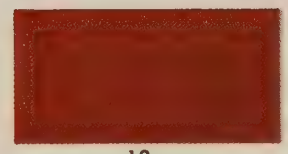
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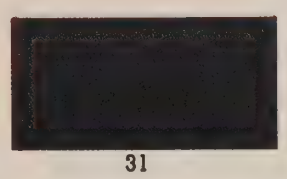
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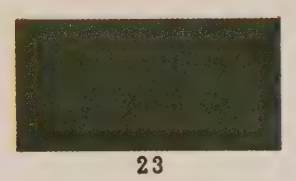
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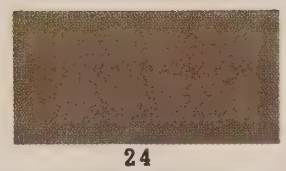
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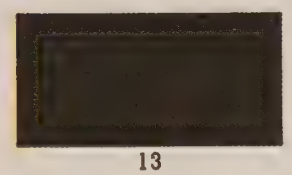
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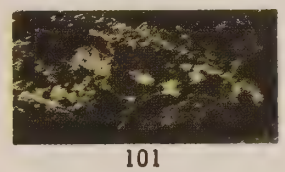
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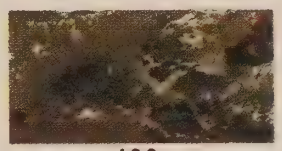
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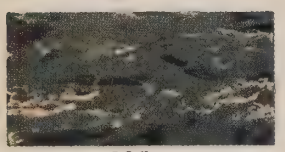
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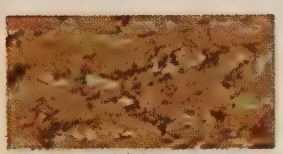
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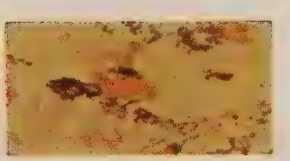
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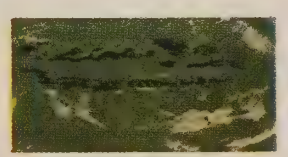
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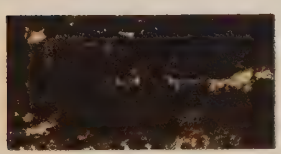
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Color Chart

JOHNS-MANVILLE TYPE A ASPHALT TILE

For identification, see the corresponding numbers in the list on the opposite page


112

Pure Oil Building, Chicago, Ill.

Mary Harkness Hall, Connecticut Women's College, New London, Conn.

Brookings Institute, Washington, D. C.

A FEW REPRESENTATIVE INSTALLATIONS OF JOHNS-MANVILLE ASPHALT TILE FLOORING

Colleges

Ursuline College
Santa Rosa, Calif.

University of California
Berkeley, Calif.

Youngstown College
Youngstown, Ohio

Georgetown University
Georgetown, Md.

Connecticut Women's College
New London, Conn.

Wells College
Aurora, N. Y.

Middlebury College
Middlebury, Vt.

Mills College
Oakland, Calif.

Catholic University, Washington, D. C.

Schools

Berkeley County High School
Berkeley, Calif.

George Washington High School
San Francisco, Calif.

Wampum School
Wampum, Pa.

Cedar Grove School
Shreveport, La.

West End High School
San Antonio, Texas

William Wilson School
Mount Vernon, N. Y.

District 3 Grammar School
Rye, N. Y.

Low Heywood School
Shippan Point, Stamford, Conn.

Englishtown School
Englishtown, N. J.

Haworth School
Haworth, N. J.

Melrose High School
Melrose, Mass.

Forest Park Junior High School
Fort Worth, Texas

Jenning Ave. Junior High School
Fort Worth, Texas

St. James School
Hagerstown, Md.

Quaker Ridge School, New Rochelle, N. Y.

Hospitals

St. Elizabeth Hospital
Youngstown, Ohio

Eye, Ear, Nose and Throat Hospital
Pittsburgh, Pa.

New Martinsville Hospital
New Martinsville, W. Va.

Ohio Valley Hospital
Wheeling, W. Va.

Bellaire Hospital
Bellaire, Ohio

Eitel Hospital
Minneapolis, Minn.

Abbott Hospital
Minneapolis, Minn.

Naeve Hospital
Albert Lea, Minn.

Highland Clinic
Shreveport, La.

City Memorial Hospital
Nacogdoches, Tex.

Maryland Tuberculosis Sanitarium
Sanitarium, Md.

Highland Sanitarium
Shreveport, La.

Tripler Hospital
Hawaiian Islands

Flint-Goodrich Hospital
New Orleans, La.

Middlesex Hospital
New Brunswick, N. J.

New York Hospital
New York, N. Y.

Mount Sinai Hospital
New York, N. Y.

St. James Riverside Hospital
Yonkers, N. Y.

Physicians' Hospital
Jackson Heights, L. I., N. Y.

New Jersey State Hospital
Marlboro, N. J.

Washington County Hospital
Hagerstown, Md.

Freedmans Hospital
Washington, D. C.

Bolling Field Hospital
Washington, D. C.

Jordan Hospital
Highland Park, Mich.

U. S. Veterans Hospital
Jefferson Barracks, Mo.

Veterans Hospital
American Lake, Wash.

Children's Hospital Bldg., State Tuberculosis Hospital, Sanitarium, Tex.

Acacia Mutual Life Insurance Company, Washington, D. C.

A FEW REPRESENTATIVE INSTALLATIONS OF JOHNS-MANVILLE ASPHALT TILE FLOORING

Churches

Hennepin Ave. M. E. Church
Minneapolis, Minn.
St. Anthony Church
Brown's Valley, Minn.
St. Johns's Lutheran Church
Good Thunder, Minn.
Holy Rosary Church
Houston, Tex.
Church of the Immaculate Conception
Houston, Tex.
St. Paul's Methodist Church
Houston, Tex.
Keller Memorial Church
Washington, D. C.
Overlea Baptist Church
Overlea, Md.
Church of the Latter Day Saints
Berkeley, Calif.
Christ Church, Methodist Episcopal
60th St. and Park Ave., New York
First Church in Malden
Malden, Mass.
Ruggles St. Baptist Church
Boston, Mass.

Banks

Bank of America
San Francisco, Calif.
Monterey County Bank
Greenfield, Calif.
National City Realty Co.,
Compound Interest Dept.
New York, N. Y.
First National Bank
Shreveport, La.

Office Buildings

Tilden Sales Bldg.
San Francisco, Calif.
Financial Centre Bldg.
San Francisco, Calif.
Balfour Bldg.
San Francisco, Calif.
California Commercial Union Bldg.
San Francisco, Calif.
Metropolitan Bank Bldg.
Minneapolis, Minn.
Federal Reserve Bank Bldg.
Minneapolis, Minn.
La Salle Bldg.
Minneapolis, Minn.
First National Soo Line Bldg.
Minneapolis, Minn.
Guardian Life Bldg.
St. Paul, Minn.
Pere Marquette Bldg.
New Orleans, La.
Atlas Bldg.
Shreveport, La.
Union Planters Bank Bldg.
Memphis, Tenn.
Gulf, Colorado & Santa Fe Bldg.
Galveston, Tex.
Acacia Mutual Life Ins. Bldg.
Washington, D. C.
Fruit Growers Express Bldg.
Washington, D. C.
Stanislaus County Fire Ins. Bldg.
Modesto, Calif.
Public Service Bldg.
Paterson, N. J.
G. W. Paterson Bldg.
Fresno, Calif.
McGraw-Hill Bldg.
New York, N. Y.
Herald-Traveler Bldg.
Boston, Mass.
Fox Film Bldg.
Memphis, Tenn.
Glasser Bldg.
Paterson, N. J.
State Board of Health Bldg.
(Division of Sanitation)
St. Paul, Minn.

Miscellaneous

Academy of Science
San Francisco, Calif.
State Capitol
St. Paul, Minn.
Dallas Public Library
Dallas, Tex.
WBA Radio Station
Annapolis, Md.
Lualualei Radio Station
Oahu, Hawaiian Islands
Embassy Hotel
San Francisco, Calif.
Chevy Chase Country Club
Washington, D. C.
Public Library
San Francisco, Calif.
City Hall
Seguin, Tex.
Brookings Institute
Washington, D. C.

First Church, Malden, Mass.

Melrose High School, Melrose, Mass.

New York Hospital, New York, N. Y.

MacMillan Hall, Wells College, Aurora, N. Y.

SPECIFICATIONS FOR J-M ASPHALT TILE FLOORING

Work Included—The work contemplated under this specification shall include all material, labor, equipment and services necessary for the installation of Johns-Manville Asphalt Tile Flooring as shown on the drawings or herein specified. (*State in detail work to be done, including colors, patterns, sizes and thickness of asphalt tile to be used in individual rooms.*)

If a cove base is shown on plans or called for in the schedule, it shall be Johns-Manville 6″ high Flexible Composition Base having a floor lip the thickness of the asphalt tile specified.

Work Not Included—The following work is included under other divisions of the specifications, which this contractor shall read to ascertain what is called for therein.

A. (*Include if sub-floor is to be new concrete.*)

The concrete sub-floor shall be firm and solid and shall have a top finish of at least ¾″ to 1″ thick. This finish shall be composed of one part portland cement and two parts clean screened sand. This topping shall be brought to a smooth, steel-troweled, monolithic finish free from waves and irregularities and finished to a point below the required floor level equal to the thickness of the asphalt tile flooring specified.

B. (*Include if sub-floor is to be old concrete.*)

The concrete sub-floor shall be prepared by the flooring contractor in accordance with manufacturer's application directions.

C. (*Include if sub-floor is to be new wood.*)

New wood sub-floors shall be of double construction, over joists not to exceed 16″ centers and which are of sufficient structural strength to carry intended loads without deflecting. The surface flooring shall be of well-seasoned, kiln dried, T & G flooring, not over 3″-face width, top-nailed and toe-nailed to a tight surface. All wood floors shall be sanded to a uniform smooth surface, shall contain no cupped or springing boards and shall be left in a suitable condition to receive Johns-Manville Asphalt Tile, in accordance with manufacturer's directions.

D. (*Include if sub-floor is to be old or uneven wood.*)

Old wood sub-floors shall be of double construction over joists not to exceed 16″ centers and which are of sufficient structural strength to carry intended loads without deflecting. These sub-floors shall be prepared by the flooring contractor in strict accord with the manufacturer's application directions.

E. (*Include if J-M Flexible Composition Base is to be used.*)

A smooth backing of cement, wood, plaster or other suitable material shall be provided to the height of the base specified.

Connecting Work—The J-M Approved Asphalt Tile Flooring Contractor shall examine all surfaces on which his work is to be applied and he shall notify the architect in writing of any defects that he may discover which, in his opinion, he considers detrimental to the installation of his materials.

Materials—All asphalt tile flooring, asphalt tile cement (and, where specified, Flexible Composition Base) referred to in these specifications shall be Johns-Manville and shall bear the manufacturer's label. The thickness of the asphalt tile, size, colors, etc., shall be as specified and shall be installed by an approved Johns-Manville Asphalt Tile Flooring Contractor.

Samples—The contractor shall submit for approval with his bid duplicate samples of each color of J-M Asphalt Tile required under his contract. Samples shall be labeled with the manufacturer's name, flooring contractor's name, and the name and color number of the tile.

Installation—After the completion of work by the trades, such as plasterers, painters and carpenters, J-M Asphalt Tile shall be applied in strict accordance with the manufacturer's application directions. Temperature of the rooms and sub-floors shall be maintained at a minimum of 70 deg. F. for several days before, during and after the application of J-M Asphalt Tile. The completed floor, when protection is necessary, shall be covered with building paper.

Cleaning—J-M Asphalt Tile Flooring shall be thoroughly cleaned (using a neutral soap or cleaner approved by the manufacturer) when directed by the architect, after installation and after the asphalt tile has thoroughly bonded to the sub-floor.

DESIGN NO. 1
FIELD OF NO. 107 - 6 X 6, 3 X 6 AND 3 X 3; NO. 123 - 3 X 3. BORDER OF NO. 123.

DESIGN NO. 9
FIELD OF NO. 115 - 6 X 6; NO. 107 - 3 X 6 AND 3 X 3; NO. 101 - 3 X 6 AND 3 X 3. BORDER OF NO. 1.

DESIGN NO. 4
FIELD OF NO. 24 - 6 X 12; NO. 32 - 6 X 6; NO. 31 - 3 X 6; NO. 1 - 3 X 3. BORDER OF NO. 1.

DESIGN NO. 11
FIELD OF NO. 31 - 12 X 12; NO. 32 - 3 X 3; NO. 24 - 3 X 6. FEATURE STRIP OF NO. 24 - 3 X 24. BORDER OF NO. 22.

JOHNS-MANVILLE

EXECUTIVE OFFICES
22 E. 40th Street
NEW YORK, N. Y.

Products

JOHNS-MANVILLE FLUSH DOORS.

For the following Johns-Manville products see File Index: Insulating Board and Insulating Lath; Asphalt Tile Flooring; Acoustical and Sound Isolation Materials; Transite Sheets, Flat and Corrugated; Home Insulation; Built-up and Insulated Roofs; Asbestos and Asphalt Shingles; Pipe Covering and Insulation; Asbestos Flexboard and Asbestos Wainscoting; Steeltex for Plaster, Stucco and Brick or Stone Veneer; Steeltex Floor Lath; Transite Walls.

JOHNS-MANVILLE FLUSH DOORS

J-M Flush Doors harmonize with almost every type of interior decoration, as they are available in an endless variety of natural woods. They are particularly adaptable for use in private homes, apartments, offices, hospitals and schools, where they add beauty equal to that of high-grade cabinet furniture.

One of the well-known advantages of the flush door, in addition to distinctive appearance, is that dust cannot lodge on its plain, smooth surfaces. This makes the door sanitary and easy to clean or paint. The core of the J-M door is sealed against dirt and vermin and, for exterior use, against moisture.

Johns-Manville Flush Doors combine the utmost in appearance with light weight and extreme serviceability. The honeycombed grid and sealed core combine to produce an economical door which will withstand the severest usage.

The center grid is made of ½-in. strips of J-M Insulating Board halved together. The strips are of wood fibre, interlaced and compacted into a strong stiff board. The core, sturdy and light in weight, is completely sealed by the faces, with the best quality of adhesive used in fabrication. This construction eliminates expansion and contraction troubles and reduces the weight that is characteristic of flush doors with a solid wood core.

The craftsmanship employed in the manufacture of the J-M Flush Door has been proved by experiments under conditions far more severe than ordinary door service. Tests reveal that every J-M Door will remain strong and straight after being slammed over 25,000 times with all the force of a half-ton slamming machine. Even soaking in water for seven days has no effect on the J-M doors manufactured to resist moisture.

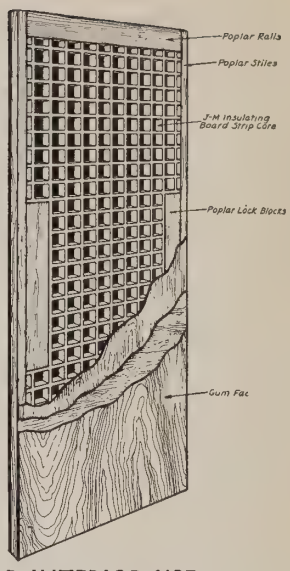
J-M Doors are easily fitted and hung in the ordinary manner, using regular hardware. The wood-faced doors, lighter than the average door with a solid core, require no special jambs or bucks. The Flexboard door, though heavier than J-M wood-faced doors, still is lighter than a solid-core door of the same size, and needs only standard support.

SIZES AND WEIGHTS

*Standard door sizes	Wel-Built lb. per door		De Luxe lb. per door		Flexboard lb. per door	
	1⅜" thick	1¾" thick	1⅜" thick	1¾" thick	1⅜" thick	1¾" thick
1′ 6″x6′0″	17	24	.....	.....	.....	.....
1′ 8″x6′0″	19	27	22	29	39	44
2′ 0″x6′0″	24	31	26	33	47	52
2′ 2″x6′0″	27	33	29	35	51	56
2′ 4″x6′0″	29	35	31	37	55	60
2′ 6″x6′0″	31	37	33	39	59	64
2′ 8″x6′0″	33	39	36	41	63	68
2′10″x6′0″	.....	41	.....	43	67	72
3′ 0″x6′0″	.....	43	.....	46	71	76
3′ 6″x6′0″	.....	.....	.....	53	.....	88
4′ 0″x6′0″	.....	.....	.....	59	.....	100
1′ 6″x6′6″	20	27	.....	.....	.....	.....
1′ 8″x6′6″	22	30	25	32	45	50
2′ 0″x6′6″	27	34	29	36	53	58
2′ 2″x6′6″	30	36	32	38	57	62
2′ 4″x6′6″	32	38	34	40	61	66
2′ 6″x6′6″	34	40	36	42	65	70
2′ 8″x6′6″	36	42	39	44	69	74
2′10″x6′6″	.....	44	.....	46	73	78
3′ 0″x6′6″	.....	46	.....	49	77	82
3′ 6″x6′6″	.....	.....	.....	56	.....	94
4′ 0″x6′6″	.....	.....	.....	62	.....	106
1′ 6″x6′8″	21	27	.....	.....	.....	.....
1′ 8″x6′8″	23	29	25	31	47	52
2′ 0″x6′8″	28	34	30	36	55	60
2′ 2″x6′8″	31	37	33	39	59	64
2′ 4″x6′8″	33	39	35	41	63	68
2′ 6″x6′8″	35	41	37	43	67	72
2′ 8″x6′8″	37	43	39	45	71	76
2′10″x6′8″	.....	45	.....	47	75	80
3′ 0″x6′8″	.....	48	.....	50	79	84
3′ 6″x6′8″	.....	.....	.....	57	.....	96
4′ 0″x6′8″	.....	.....	.....	63	.....	108
1′ 6″x7′0″	23	31	.....	.....	.....	.....
1′ 8″x7′0″	25	33	27	35	51	56
2′ 0″x7′0″	30	37	32	39	59	64
2′ 2″x7′0″	32	39	34	41	63	68
2′ 4″x7′0″	35	41	37	43	67	72
2′ 6″x7′0″	37	43	39	45	71	76
2′ 8″x7′0″	39	46	41	48	75	80
2′10″x7′0″	.....	48	.....	50	79	84
3′ 0″x7′0″	.....	50	.....	52	83	88
3′ 6″x7′0″	.....	.....	.....	59	.....	100
4′ 0″x7′0″	.....	.....	.....	65	.....	112
2′ 6″x7′6″	.....	.....	.....	49	.....	.....
3′ 0″x7′6″	.....	.....	.....	56	.....	94
3′ 6″x7′6″	.....	.....	.....	63	.....	106
4′ 0″x7′6″	.....	.....	.....	69	.....	118
2′ 6″x8′0″	.....	.....	.....	53	.....	.....
3′ 0″x8′0″	.....	.....	.....	60	.....	100
3′ 6″x8′0″	.....	.....	.....	66	.....	112
4′ 0″x8′0″	.....	.....	.....	72	.....	124

*Only sizes with weights indicated are standard. Weights are approximate for unpacked doors. About 8 lbs. should be added for crating.

JOHNS-MANVILLE WEL-BUILT FLUSH DOORS—FOR INTERIOR USE ONLY
GUM FACED—GRID CORE



Specification

General—Doors shall be of size and thickness required. Tolerances: thickness +0 in. $-\frac{1}{16}$ in.; width and height $\pm\frac{1}{32}$ in.

Stiles and Rails (1⅜ and 1¾ In. Thick Doors)—Stiles shall be at least 1⅛ in. wide and rails shall be at least 3½ in. wide. Both shall be of such thickness that the door, after sanding, will meet door-thickness requirements. All material shall be of even-textured yellow poplar. Stiles shall be "clear" ½ in. back from exposed edges.

Lock Blocks—Lock blocks shall be sufficiently wide to allow at least 4¾ in. from edge of door to the inside edge of the lock block, and shall be placed at both sides of the door and at the center of the stiles. Maximum distance from the bottom of the lock block to the bottom of the door shall be 28½ in.

Cores—Cores shall be made in grid pattern. Grid bars shall be of ½-in. J-M Insulating Board, halved together. Cores shall be of necessary thickness to provide doors of required thickness.

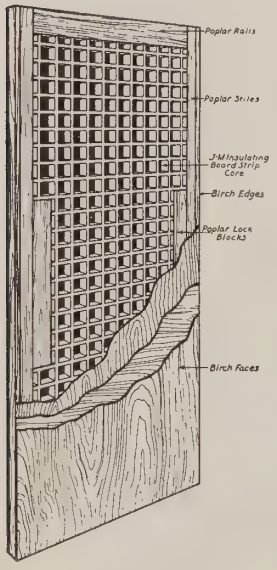
Faces—Each face of the door shall be three-ply plywood, composed of three 1/18-in. thick gum veneers. Exposed ply shall be rotary-cut gum, unselected for color. *(See note.)*

Adhesive—Entire assembly shall be fabricated with a high grade vegetable glue.

Finish—Doors shall be sanded to a smooth, even surface, ready for finish. Edges shall be planer cut—not sanded.

Note: Gum has been chosen as the standard face for Wel-built doors because it works to a fine finish most easily and stains in a remarkable semblance to either mahogany or walnut with the least difficulty. Doors with faces of rotary-cut birch, plain half-round red oak, rotary-matched red gum or sliced knotty pine are available on special order.

JOHNS-MANVILLE DE LUXE FLUSH DOORS—FOR INTERIOR USE
Resin-Bonded—for exterior use
BIRCH-FACED—GRID CORE



Specification

General—Doors shall be of size and thickness required. Tolerances: thickness +0 in. $-\frac{1}{16}$ in.; width and height $\pm\frac{1}{32}$ in.

Stiles and Rails (1⅜ and 1¾ In. Thick Doors)—Stiles shall be at least 2⅛ in. wide and shall have exposed edgings of birch, not less than ¾ in. wide, "lindermanized" to the frame material. Rails shall be at least 3½ in. wide. Both rails and stiles shall be of such thickness that door, after sanding, will meet door-thickness requirements. All material, except exposed edgings, shall be of even-textured yellow poplar.

Lock Blocks—Lock blocks shall be sufficiently wide to allow at least 5¾ in. from edge of door to the inside edge of the lock block, and shall be placed at both sides of the door and at the center of the stiles. The maximum distance from the bottom of the lock blocks to the bottom of the door shall be 28½ in.

Cores—Cores shall be made in grid pattern. Grid bars shall be of ½-in. J-M Insulating Board, halved together. Cores shall be of necessary thickness to provide required door thickness.

Faces—Each face of the door shall be three-ply plywood, composed of two 1/18-in. thick gum veneers as back and cross banding. Exposed ply shall be of 1/20-in. thick rotary-cut birch, unselected for color. *(See note.)*

Adhesives—Entire assembly shall be fabricated with casein glue. *(See note.)*

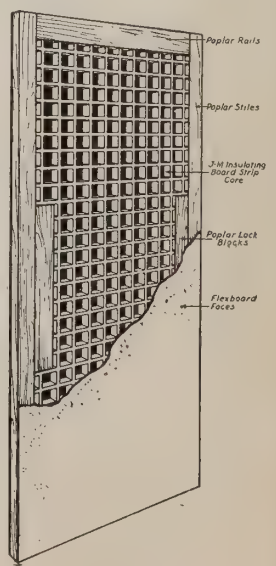
Finish—Doors shall be sanded to a smooth, even surface. ready for finish. Edges shall be planer cut—not sanded.

Packing and Crating—Each door shall be individually paper wrapped, dust-tight.

Note: J-M De Luxe Doors, "Resin-Bonded," are available on special order. Standard faces are of Birch but they are available in other woods, some of which are listed below. Vertical edges for all the facings listed will be of the same wood as the faces, with the exception of red cedar edges, which cannot be furnished.

Face woods for J-M De Luxe Doors: Selected birch, rotary-cut or sliced, red or white; gum, selected or unselected rotary-cut; red gum, medium or highly-figured, quarter-sliced; mahogany, sliced, plain, quartered or flat cut, plain, ribbon or strong stripe; red oak, rift-sawn, rotary-cut or half-round; white oak, quarter-sawn, rotary-cut or half-round; knotty kine, sliced; walnut, half-round or sliced, plain, no sap, or rotary cut or quarter-sliced, no sap; and aromatic red cedar, sawn.

JOHNS-MANVILLE FLEXBOARD FLUSH DOORS—FOR INTERIOR OR EXTERIOR USE
ASBESTOS FLEXBOARD-FACED—GRID CORE



The J-M door faced with Asbestos Flexboard is especially adaptable where extreme moisture conditions exist or where a door is desired that will offer resistance to the passage of fire. Standard Flexboard facings are ⅛ in. thick sheets of asbestos fibre and cement. The rigidity of Flexboard and the hot-press resin bonding aid in keeping these doors in their original straight, flat condition. To combine the advantages of Flexboard with the beauty of wood graining and coloring, any commercial veneer may be applied over the Flexboard.

Specification

General—Doors shall be of size and thickness required. Tolerances: thickness +0 in. $-\frac{3}{32}$ in.; width and height $\pm\frac{1}{32}$ in.

Stiles and Rails (1⅜ and 1¾ In. Thick Doors)—Stiles shall be at least 2⅛ in. wide and rails shall be at least 3½ in. wide. Both rails and stiles shall be of such thickness that door, after sanding, will meet door-thickness requirements. All material shall be even-textured yellow poplar. Stiles shall be "clear" ½ in. back from exposed edges.

Lock Blocks—Lock blocks shall be sufficiently wide to allow at least 5¾ in. from edge of door to inside of the lock block, and shall be placed at both sides of the door and at the center of the stiles. Maximum distance from bottom of lock block to bottom of door shall be 28½ in.

Cores—Cores shall be made in grid pattern. Grid bars shall be of ½-in. J-M Insulating Board, halved together. Cores shall be of necessary thickness to provide doors of required thickness.

Faces—Faces shall be Johns-Manville Asbestos Flexboard ⅛ in. thick. Faces shall be steam cured. *(See note.)*

Adhesive—Entire assembly shall be fabricated with hot-press resin bonding.

Finish—Doors shall be sanded to a smooth, even surface and shall be primed with a coating of aluminum-bronze lacquer.

Note: J-M Flexboard Doors are also made with Decorative Flexboard faces, which may be had in four colors: rose, green, gray or buff. Since Decorative Flexboard needs no finish, the last paragraph of the foregoing specification should be omitted when these faces are desired.

JOHNS-MANVILLE

EXECUTIVE OFFICES

22 East 40th Street, NEW YORK, N. Y.

Products

J-M Steeltex Floor Lath and Welded Wire Reinforcement for concrete building construction. *(Other Steeltex products will be found in our catalog in the Metal Lath section of this edition.)*

For the following Johns-Manville products, see File Index; Acoustical Treatment; Asbestos and Asphalt Shingles; Built-up and Insulated Roofs; Home Insulation; Insulating Board; Pipe Coverings and Insulations; Asphalt Tile Flooring; Transite, Flat and Corrugated; Asbestos Wainscoting and Flexboard; Transite Walls; Flush Doors.

J-M STEELTEX FLOOR LATH

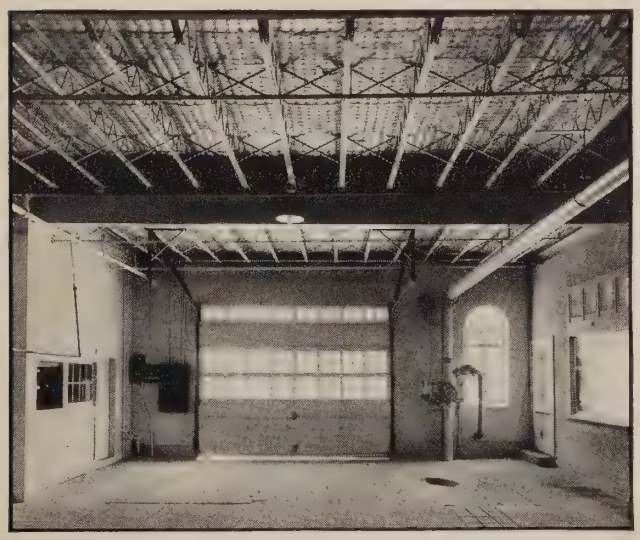
J-M Steeltex Floor Lath is a combined form and reinforcing which offers important structural advantages and economies in light-slab concrete floor and roof construction. It will give maximum reinforcing value and facilitate proper curing of the concrete through the maintenance of the original water-cement ratio, at the same time effecting important savings in application costs and in the reduction of waste material.

The reinforcing element of Steeltex Floor Lath is composed of 12-gauge cold-drawn electrically-welded galvanized steel wire reinforcing mesh. This mesh is attached to a tough corded backing—the form element—by means of crimp wires which also space the reinforcing mesh at the proper distance from the backing to permit the concrete completely to surround and embed the reinforcement. The weight of the poured concrete insures complete and uniform embedment without the labor of blocking up or of pouring the slab in two operations.

The Steeltex corded backing is of ample strength not only to support the concrete while it is being poured, but also to afford a safe walking surface, once the fabric has been attached to the joists. Being water-resistant, the backing minimizes loss of water and fine aggregate through leakage, with a further advantage in the protection it affords to the floors below. Droppings are minimized, clean-up expense is eliminated, and work can proceed in safety even while the concrete is being placed on the floor above.

Form and Reinforcing Combined

Steeltex Floor Lath has the dual feature of making forms unnecessary and providing proper reinforcing for light cement floor or roof slabs



Underside view of a Steeltex Floor Lath installation after the concrete has been poured

Note absence of concrete drippings and of sag between joists—two advantages that mean a worthwhile saving in concrete

Advantages of Steeltex Method of Application

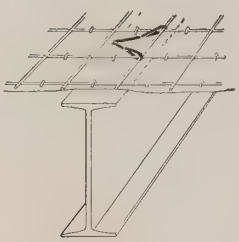
The laying of Steeltex Floor Lath is accomplished with a minimum of time and labor. Furnished in conveniently handled rolls 4 ft. wide by 125 ft. in length, the material is simply unrolled over the joists and cut to length. It is then attached to an end or anchored joist, drawn taut by means of the special Steeltex stretcher furnished for this purpose and fastened by clips to the intermediate joists.

The speed of work is also facilitated by the ability to cut necessary openings for pipes, etc., with snips or knife instead of saw, chisel and auger. Naturally, rolls can be more quickly laid per unit of area than can sheets, and with less waste, since overlapping is minimized.

Properly installed, there is no excessive sag when concrete is being poured, which effects considerable saving. Also, because Steeltex Floor Lath extends in one piece across the entire panel or bay, it gives lateral stiffness, continuity of reinforcing and distribution of loads over a number of joists or beams. The automatic embedding of the steel wire fabric in

the concrete, coupled with its scientific design and spacing, provides maximum reinforcing value and promotes development of the full strength of the slab.

Equally Adaptable to Floors and Roofs



Steeltex Clips furnish a secure hold

The advantages of Steeltex Floor Lath as a reinforcement and form for light-slab floor construction apply equally in the construction of concrete and gypsum roofs. The material is easily laid on sloping or curved roof surfaces and the fibrous backing is particularly adapted to roof construction since it helps check condensation on the underside of the slab, thus protecting the steel joists and beams and the plaster ceiling beneath.

Steeltex Floor Lath Is Applied by Unrolling the Material Across Joists
The roll form assures continuity of reinforcement across the entire panel, and provides, in one operation, both form and reinforcement

Floor slab being poured over Steeltex Floor Lath

TABLE OF SAFE LOADS FOR CONCRETE FLOOR SLABS USING STEELTEX FLOOR LATH

Values in table are Total Safe Loads in pounds per sq. ft. uniformly distributed, including Slab

Span of slab, inches	Size of Slab and Weight per square foot			
	2 in. (*25 lbs.*)	2½ in. (*31 lbs.*)	3 in. (*38 lbs.*)	3½ in. (*44 lbs.*)
18	436	586	736	886
20	353	475	597	718
22	292	392	494	594
24	245	330	415	499
26	209	281	353	426
28	180	242	305	366
30	157	211	266	319
32	139	186	234	281
34	123	165	207	248
36	109	146	184	222

Note: For partial continuity, i. e. $M = \frac{W1^2}{10}$ take 5/6 of loads in table.

For simply supported, i. e. $M = \frac{W1^2}{8}$ take 2/3 of loads in table.

For stress in steel other than 20,000, loads are directly proportional to stress, thus for 16,000, take 16/20 of load in table, for 18,000 take 18/20 of load in table, etc.

Specifications for J-M Steeltex Floor Lath

(Specifications for reinforcing concrete and gypsum floors and roofs over steel joists)

Before installing Steeltex Floor Lath, joists shall be rigidly bridged and end joints securely anchored in accordance with Steel Joist Institute specifications.

Steeltex Floor Lath (a 3x4-in., 12-gauge, cold-drawn, electrically-welded, galvanized wire fabric, attached to a water-resistant backing, furnished in rolls 4 ft. x 125 ft.) shall be unrolled across the joists to the desired length from the outer or bearing walls of the building. Steeltex Floor Lath shall be fastened every 12 in. along the end joist with special clips.

Steeltex Floor Lath shall be stretched taut longitudinally across the joists by a special stretcher, and clipped securely every 12 in. along the bearing to which the stretcher is attached. Steeltex Floor Lath shall then be clipped to each joist every 24 in. on joists spaced 16 in. and over, and one clip per width of roll for joists spaced under 16 in. Each clip shall face in the opposite direction from the clip adjacent to it.

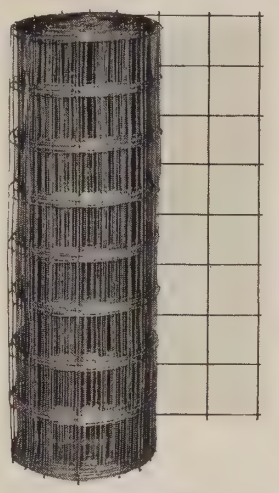
Where end laps are necessary, Steeltex Floor Lath shall be lapped at least 1 ft. directly over a joist. Side laps shall be not less than 2 in.

Note: Installation instructions and test information are available upon request at the nearest Johns-Manville office.

JOHNS-MANVILLE WELDED WIRE REINFORCEMENT

For general concrete building construction, Johns-Manville supplies J-M Welded Wire Reinforcement. This is more than ordinary "steel reinforcement." It is an electrically-welded wire fabric of square or rectangular mesh, manufactured from a special high grade cold-drawn steel wire of high tensile strength and proper ductile qualities.

This welding produces an absolutely rigid connection at every joint. Distortion of the fabric is thereby prevented and, since there are no wraps, ties or clips where the members are joined, the concrete is allowed to flow freely around and completely cover every wire. The result is a perfect bond between concrete and reinforcement. Rolls are of such length as to provide an unbroken continuity of reinforcement extending across the entire width of most buildings. Full effectiveness of reinforcement is thus obtained at every section of the slab, while the almost complete absence of laps and splices reduces the required quantity of steel to the minimum.

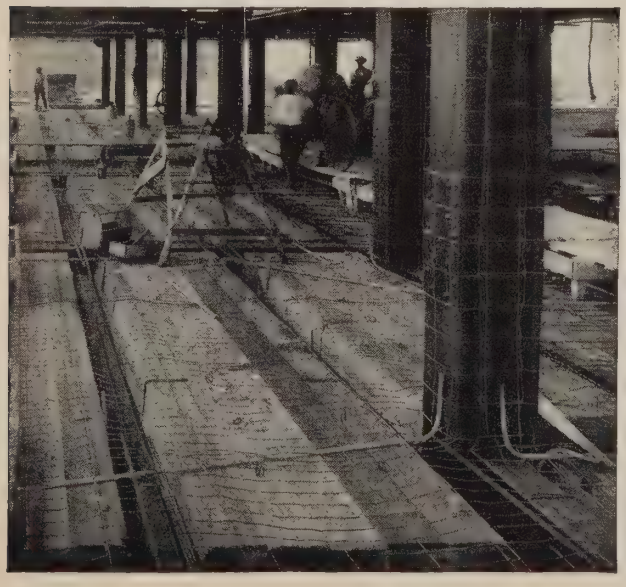


A roll of J-M Welded Wire Reinforcement

A Type for Every Reinforcing Need

Practically any desired size of mesh and gauge of wire may be obtained. *(See table of standard styles opposite.)* This wide range of selection adapts the material to a multitude of uses, including reinforcement of all types of concrete floor slab construction, concrete driveways, sidewalks, retaining walls, etc.; beam and column wrapping; fireproofing of steel framework; temperature reinforcement in top or finish layer of cement or composition floors, etc.

Finish—Plain or Galvanized as specified. *(Plain* fabric will be shipped on all unspecified orders.)



Floor and Column Reinforcing

Tensile Strength—Wire used in all types of J-M Welded Wire Reinforcement will develop 70,000 lbs. per sq. in.

Widths—*Rolls* or *Sheets:* For 4-in. spacing of longitudinal wires, maximum width is 112 in. and is measured from center-to-center of outside longitudinal wires. For 3-in. and 6-in. spacing of longitudinal wires, maximum width is 60 in., with 139 in. possible in some styles, and is measured from center-to-center of outside longitudinal wires. All tranverse wires will have close overhang (½ in. or less) unless otherwise specified.

Lengths—*Rolls:* Stock lengths 100 ft. to 300 ft. depending on style. Customer may specify length of rolls on orders not shipped from stock.

Sheets: No extra charge for sheets 6 ft. or over. Sheet length as specified by customer.

DIMENSIONS, AREAS AND WEIGHTS

SUITABLE USES	Style	Spacing, inches		Gauge of wire		Sec. Area, sq. in. per lin. ft.		Weight per 100 sq. ft. lbs.
		Long.	Tran.	Long.	Tran.	Long.	Tran.	
Gunite, Composition Flooring, Fireproofing, Etc.	AA 1414	2	2	14	14	.030	.030	21
	AA 1212	2	2	12	12	.052	.052	37
	TT 1414	3	3	14	14	.020	.020	14
	TT 1212	3	3	12	12	.035	.035	25
	TT 1010	3	3	10	10	.057	.057	41
	BB 1414	4	4	14	14	.015	.015	11
	BB 1313	4	4	13	13	.020	.020	14
	BB 1212	4	4	12	12	.026	.026	19
	BB 1010	4	4	10	10	.043	.043	31
Gunite, Waterproof Concrete Linings, Etc.	BB 88	4	4	8	8	.062	.062	44
	BB 66	4	4	6	6	.087	.087	62
	BB 44	4	4	4	4	.120	.120	85
Temperature Reinforcing, Ground Floors, Etc.	CC 1212	6	6	12	12	.017	.017	13
	CC 1010	6	6	10	10	.029	.029	21
	CC 99	6	6	9	9	.035	.035	25
	CC 88	6	6	8	8	.041	.041	30
	CC 77	6	6	7	7	.049	.049	36
	CC 66	6	6	6	6	.058	.058	42
Slab Reinforcing, Etc. (One direction only)	AH 711	2	16	7	11	.148	.008	55
	AH 610	2	16	6	10	.174	.011	65
	AH 510	2	16	5	10	.202	.011	75
	AH 49	2	16	4	9	.239	.013	89
	AH 38	2	16	3	8	.280	.015	104
	TH 711	3	16	7	11	.098	.009	38
	TH 610	3	16	6	10	.116	.011	45
	TH 510	3	16	5	10	.135	.011	52
	TH 49	3	16	4	9	.160	.013	61
	TH 38	3	16	3	8	.187	.015	72
	TH 28	3	16	2	8	.217	.015	83
	TH 17	3	16	1	7	.252	.018	96
	TH 06	3	16	0	6	.295	.022	113
	BH 711	4	16	7	11	.074	.008	30
	BH 610	4	16	6	10	.087	.011	35
	BH 510	4	16	5	10	.101	.011	40
	BH 49	4	16	4	9	.120	.013	48
	BH 38	4	16	3	8	.140	.015	56
	BH 28	4	16	2	8	.162	.015	64
Beam Wrapping, Fireproofing, Etc.	BD 1313	4	8	13	13	.020	.010	11
	BD 1214	4	8	12	14	.026	.008	12
	BD 1212	4	8	12	12	.026	.013	14
	BD 1112	4	8	11	12	.034	.013	17
	BD 1012	4	8	10	12	.043	.013	20
Concrete Shapes, Etc.	BD 912	4	8	9	12	.052	.013	23
	BD 812	4	8	8	12	.062	.013	27
	BD 711	4	8	7	11	.074	.017	33
Slab Reinforcing, Driveways, Ramps, Etc.	BF 1012	4	12	10	12	.043	.009	19
	BF 912	4	12	9	12	.052	.009	22
	BF 812	4	12	8	12	.062	.009	26
	BF 711	4	12	7	11	.074	.011	31
	BF 610	4	12	6	10	.087	.014	37
	BF 510	4	12	5	10	.101	.014	42
	BF 49	4	12	4	9	.120	.017	50

Note: The "Style" letter and numerals refer respectively to the spacing of wires and to the gauge of wires; for instance, "BD" means 4-in. spacing of longitudinal wires and 8-in. spacing of transverse wires, and "1112" means No. 11 gauge longitudinal wires and No. 12 gauge transverse wire.

JOHNS-MANVILLE

EXECUTIVE OFFICES
22 East 40th Street, NEW YORK, N. Y.

Products

JOHNS-MANVILLE TRANSITE PRODUCTS.
For the following Johns-Manville products, see File Index: Transite Walls; Acoustical Treatment; Asbestos and Asphalt Shingles; Built-up Roofs; Insulated Roofs; Home Insulation; Insulating Board; Pipe Coverings and Insulations; Asphalt Tile Flooring; Asbestos Wainscoting and Flexboard; Flush Doors; Steeltex for Plaster, Stucco, and Brick or Stone Veneer; Steeltex Floor Lath and Welded Wire Reinforcement.

JOHNS-MANVILLE TRANSITE PRODUCTS

Corrugated Transite Roofing and Siding

Corrugated Transite Asbestos Roofing and Siding is made of asbestos fibres and portland cement united under hydraulic pressure into dense, unlaminated, monolithic sheets of great strength and rigidity. It is designed for application directly over purlins or girts of skeleton steel or wood frame construction. It will not burn or rust, rot, split, crack or curl. In color, it is an attractive light gray. It is weatherproof, highly resistant to corrosion and requires no painting to preserve it.

Laying J-M Corrugated Transite Roofing
The cut corner construction permits a tight joint with straight lap lines

Transite can be readily drilled or sawed and is secured with bolts, screws, clips, etc., designed for that purpose. Special shapes of the same material for use as ridge roll, corner roll, louvres, etc., are available.

Sizes—Sheets are furnished 42 in. wide in lengths up to 11 ft. They are approximately $\frac{7}{16}$ in. thick at ridges and valleys of corrugations and approximately $\frac{5}{16}$ in. thick at the slope. The corrugations are 4.2-in. pitch. The over-all thickness of the sheets is 1½ in. Approximate weight, 4.1 lbs. per sq. ft. uncrated.

Application—See details on following page. Transite may be applied over roof purlins spaced on not greater than 54-in. centers (minimum roof pitch 2 in. per foot), and on siding girts not over 66 in. center to center. Sheets are laid with a 6-in. end lap and a one-corrugation side lap, providing an exposure of 37.8 in. Complete details are given in Brochure TR-12A.

Flat Transite Sheets

Flat Transite has the same characteristics as Corrugated Transite. It is generally regarded as the outstanding fireproof, corrosion-resistant building sheet on the market today. Its attractive, light gray color and interesting texture also offer definite decorative possibilities.

Flat Transite does not become warped, distorted or weakened in service; in fact, it actually strengthens and toughens with age. It offers high resistance to acid fumes and severe weather conditions and finds a wide use in industrial plants, as well as in hospitals, libraries, office buildings, railway stations, machine shops, garages and residences. Its easy workability and the speed with which the large units can be erected are but two of its many advantages.

Transite weighs approximately 124 lbs. per cu. ft. Sheets are furnished in sizes 36x48 and 42x48 in. in thicknesses of ⅛ to 4 in.; 48x48, 42x96 and 48x96 in. from $\frac{3}{16}$ to 2 in. thick.

Transite Walls

Transite Walls for office partitions are fully described in another section. See File Index.

W. R. Transite

Both Flat and Corrugated Transite sheets can be furnished with a bituminous impregnation to afford maximum impermeability where the material will be subjected to extreme or sustained moisture or acid conditions.

W. R. Flat Transite is furnished in standard size sheets, 42x96 in., ¼ in. thick; 42x48 in., ⅛, $\frac{3}{16}$ and ¼ in. thick; and 36x48 in., ⅛ and $\frac{3}{16}$ in. thick. Smaller sizes can be furnished on special order. W. R. Corrugated Transite is furnished in the same sizes as standard Corrugated Transite, but in lengths only up to and including 8½ ft.

Transite Flues and Stacks

Transite Pipe, one of the newest J-M asbestos-cement products, is already being widely used for venting gas burning appliances because of its unusual resistance to corrosive gases and fumes. The material is supplied in either round or oval form and in a full range of diameters. For complete data on Transite Flue Pipe and accessories, ask for Brochure TR-13A.

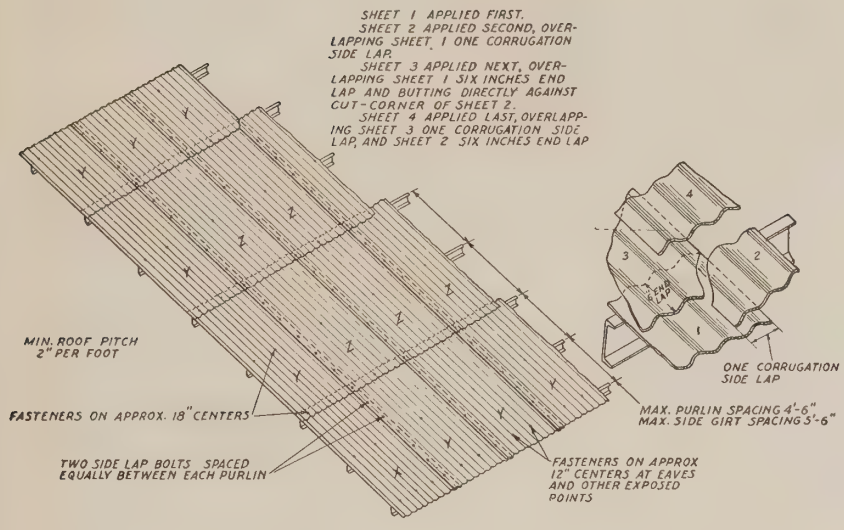
This same material is also being widely used as industrial stacks, particularly where corrosive fumes may be encountered.

Transite Ventilators

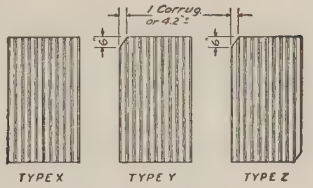
Transite Ventilators, made from Transite Pipe, are designed for use on all buildings where fireproof, fume-proof and weather-proof construction is desired. They are especially satisfactory for engine houses, gas and power houses, laboratories, factories, etc., where a corrosion-resisting ventilator is essential. They never need painting to preserve them and have proved most economical because of their permanence and virtual freedom from maintenance.

Sizes 10 to 24 in. are shipped assembled. Larger sizes are shipped knocked down.

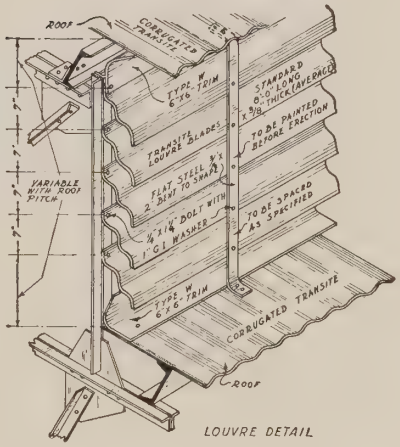
CORRUGATED TRANSITE CONSTRUCTION DETAILS



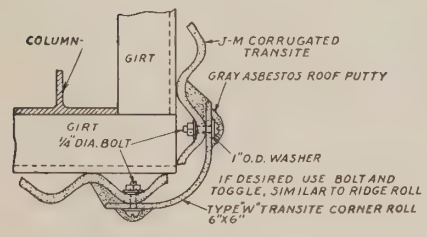
STRAIGHT LAP LINE CONSTRUCTION WITH CUT-CORNER SHEETS



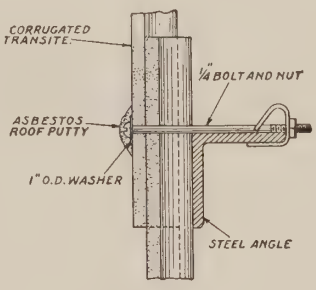
TYPES OF SHEETS FOR CUT-CORNER CONSTRUCTION



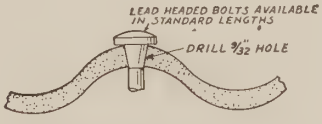
LOUVRE DETAIL



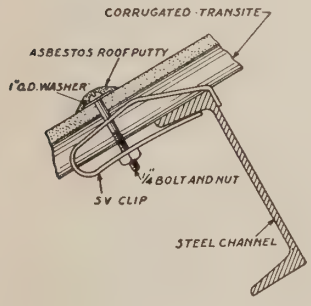
SECTION SHOWING CORNER ROLL



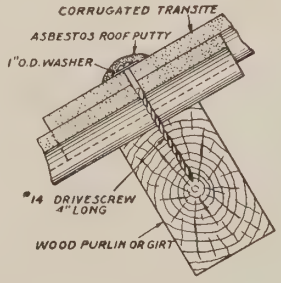
DETAIL OF HOOK CLIP



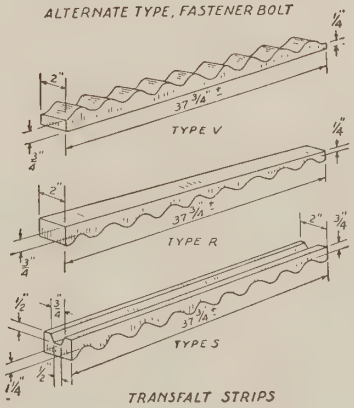
ALTERNATE TYPE, FASTENER BOLT



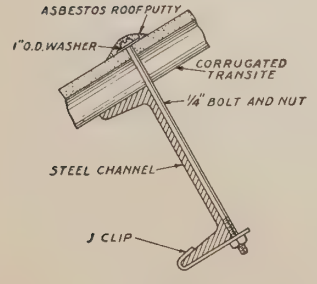
DETAIL OF SV CLIP



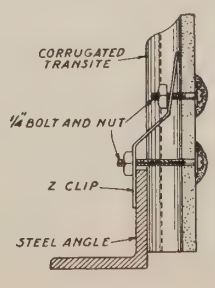
DETAIL OF DRIVESCREW



TRANSFALT STRIPS

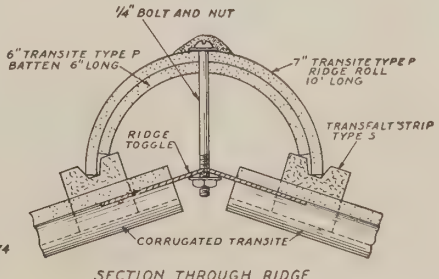


DETAIL OF J CLIP



PATENTS Nos. 1,489,474 2,015,129 & 2,021,929 PAT'D. CANADA 1923.

DETAIL OF Z CLIP



SECTION THROUGH RIDGE

JOHNS-MANVILLE

EXECUTIVE OFFICES
22 East 40th Street, NEW YORK, N. Y.

Member of The Producers' Council, Inc.

Products

JOHNS-MANVILLE INSULATIONS.

For the following Johns-Manville products, see File Index: Acoustical Treatment and Sound Isolation; Asbestos and Asphalt Shingles; Built-up Roofs; Insulated Roofs; Home Insulation; Insulating Board; Transite Walls; Asphalt Tile Flooring; Transite, Flat and Corrugated; Asbestos Wainscoting and Flexboard; Flush Doors; Steeltex for Plaster, Stucco, and Brick or Stone veneer; Steeltex Floor Lath and Welded Wire Reinforcement.

JOHNS-MANVILLE INSULATIONS

Because, for any specific service, there is one type and form of insulation that will serve better, more economically than any other, JOHNS-MANVILLE maintains a complete line of insulations.

From the four mineral products—asbestos, magnesium carbonate, diatomaceous silica (Celite), and rock or mineral wool—JOHNS-MANVILLE produces insulation in the forms of sectional pipe covering; insulating sheets, blocks, bricks and blankets; insulating cements, fillers and finishes; insulating papers and felts; as well as a lightweight aggregate used with portland cement for making insulating concrete. A wide range of hair felt products completes the line.

In the brief descriptions of heating, plumbing and refrigeration insulations, in the paragraphs following, the materials included are recommended for their recognized efficiency, desirability and economy for the various services covered.

In addition to these, JOHNS-MANVILLE also manufactures other materials for insulating homes and buildings, and for the insulation of every kind of high temperature industrial equipment.

Complete details of any type of insulation for any service will be promptly furnished upon application to the nearest JOHNS-MANVILLE office. The J-M Industrial Insulation catalog may also be obtained on request.

J-M 85% Magnesia Pipe Insulation and Blocks

JOHNS-MANVILLE recommends 85% Magnesia as the most generally satisfactory and economical material for insulating steam lines at temperatures up to 600° F.

For superheated steam at temperatures above 600° F., J-M 85% Magnesia is often used outside a layer of Superex.

J-M 85% Magnesia
Today it is the most widely used insulation for steam lines at temperatures up to 600° F.

J-M 85% Magnesia Pipe Insulation is furnished in 3-ft. sections and segments in the following thicknesses: Standard (which varies from ⅞ to 1½ in., depending on pipe size), 1½, 2, 2½ in.; Double Standard (two layers, each Standard thick); and 3 in. (double layer for broken joint construction).

J-M 85% Magnesia blocks are furnished in standard sizes 3x18 and 6x36 in., flat or curved, from ½ to 4 in. thick. Other sizes, and lagging, on special order.

In general, all pipes, fittings and flanges at temperatures below 600° F., except small fittings which are insulated with J-M No. 302 Cement, should be insulated with Asbesto-Sponge Felted or J-M 85% Magnesia to the thickness given in table below. Asbesto-Sponge Felted Pipe Insulation may be used at temperatures up to 700° F.

On outside piping it is customary to use insulation ½ in. thicker than that on indoor lines.

J-M PIPE INSULATION RECOMMENDATIONS FOR TEMPERATURES TO 600° F.
J-M 85% Magnesia or Asbesto-Sponge Felted

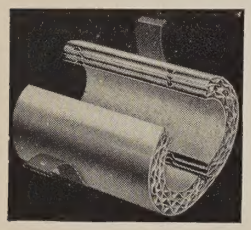
Thickness of insulation, J-M 85% Magnesia			Temperature, deg. F.	Thickness of insulation, Asbesto-Sponge Felted		
Pipes larger than 4 in.	Pipes 2 to 4 in.	Pipes smaller than 2 in.		Pipes larger than 4 in.	Pipes 2 to 4 in.	Pipes smaller than 2 in.
Std.	Std.	Std.	Below 212	1	1	1
Std.	Std.	Std.	212 to 266	1	1	1
1½	Std.	Std.	267 to 337	1½	1	1
2	1½	Std.	338 to 387	2	1½	1
Dbl. Std.	2	1½	388 to 499	2½	2	1½
3	Dbl. Std.	2	500 to 599	3	2½	2
			600 to 700	3½	3	2

J-M Asbesto-Sponge Felted Insulation

Asbesto-Sponge Felted is not only the most efficient commercial pipe insulation for temperatures up to 700° F., but it is also the most durable. It is practically abuse-proof, standing up indefinitely under vibration and wear and tear that quickly affect other materials.

Like J-M 85% Magnesia, it is often used outside a layer of Superex for insulating high temperature equipment.

Asbesto-Sponge Felted is furnished in 3-ft. sections in thicknesses from 1 to 3 in., also in sheets 24x36 in. and blocks 6x36 in. from ½ to 4 in. thick.



Pre-shrunk Asbestocel
With non-canvas finishes, saves one-third the labor cost

J-M Pre-Shrunk Asbestocel Pipe Insulation

For low pressure steam and hot water lines

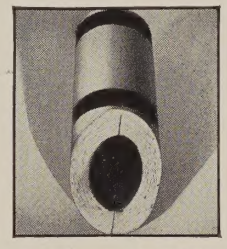
Pre-shrunk Asbestocel sectional pipe insulation is made of moisture-resisting asbestos felts to prevent objectionable shrinkage in service. Furnished in either aluminum finish, asbestos paper finish or with the usual canvas jacket. Thicknesses up to eight ¼-in. plies. For temperatures up to 300° F.

Asbestocel is also furnished in sheets and blocks, 4 plies to the inch, sizes 36x36, 18x36, 12x36 and 6x36 in. from ½ to 4 in. thick, and in flexible roll form 37 in. wide and ¼ in. thick.

J-M Pre-Shrunk Wool Felt Pipe Insulation

For service water lines

Made of specially indented wool felt and provided with a dual-service liner for use on hot or cold water lines. Treated to prevent objectionable shrinkage in service. Furnished with either aluminum finish or the usual canvas jacket. Thicknesses ½, ¾, 1, double ½, and double ¾ in. for pipe sizes from ½ and larger. For temperatures from 40° to 200° F.



Pre-shrunk Wool Felt
Furnished either with canvas or with an aluminum finish that requires no pasting and saves one-third on labor

J-M Rock Cork Sheets and Pipe Insulation

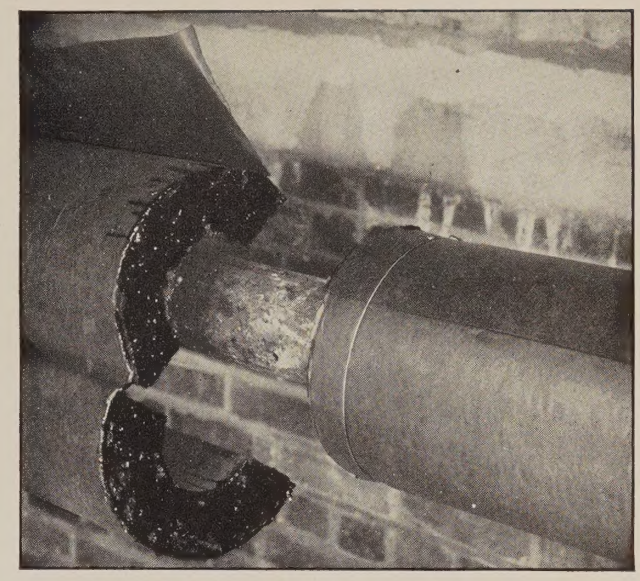
For low temperatures

Because Rock Cork has a successful service record extending for more than a quarter of a century, JOHNS-MANVILLE recommends it as an efficient and economical insulation for cold rooms, ducts and refrigerating equipment.

Made of rock wool combined with a waterproof binding ingredient, Rock Cork is mineral in composition; highly moisture-resistant; permanent; rotproof; chemically inert; odorless and incapable of absorbing odors. Completely sanitary, it will not harbor vermin or rats and cannot support the growth of mold or bacteria. With its tiny air spaces completely sealed with the waterproof binder, Rock Cork resists the infiltration of air and moisture, thus eliminating this direct cause of most insulation failures. No other low temperature insulation is as effective as Rock Cork in resistance to moisture absorption. More than any other one feature, this distinctive characteristic has been responsible for the outstanding service record of Rock Cork.

J-M Rock Cork is furnished in standard sheets, 18x36 in.; in thicknesses of 1½, 2, 2½, 3 and 4 in., and 18x18 in. in 1-in. thickness. Other sizes, within the above limitations and of standard thickness, can be furnished on special order.

Rock Cork in lagging form for curved surfaces is supplied 18 in. long, 1½, 2, 3 and 4 in. thick, and 2 to 5 in. wide, depending on diameter.



Rock Cork Pipe Insulation is moisture-proof

In Rock Cork Pipe Insulation, JOHNS-MANVILLE makes available an insulation for low temperature pipes that combines with the proved permanent high efficiency and unexcelled moisture-resistance of Rock Cork Sheets the added protection of *hermetic sealing*—a waterproof jacket, integral with the pipe covering and provided with a flap which is sealed down over the longitudinal joint at installation.

With similar treatment of the circumferential joint between sections, and the most effective method of insulating fittings, Rock Cork Pipe Covering provides an unbroken, seamless sheath of insulation, permanently airtight and moistureproof.

Fittings, the usual "weak spots" in low temperature pipe insulation, are insulated with Zerotex—a special waterproofed rock wool—and then double-sealed to provide an impenetrable barrier to moisture at these vulnerable points.

Other J-M Insulations

For high temperatures, the J-M line includes Superex pipe insulation and blocks for temperatures to 1900° F., Sil-O-Cel Natural Brick for temperatures to 1600° F. and JM-20 and Sil-O-Cel C-22 Brick for use up to 2000° F. The catalog "J-M Industrial Insulations" contains complete descriptions of the entire line. It is free on request.

J-M Rock Cork Sheets
Efficient, permanent and economical

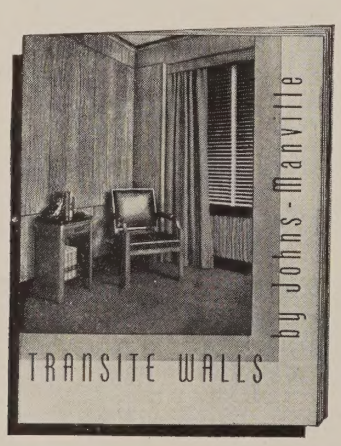
OTHER JOHNS-MANVILLE CATALOGS

which are included in Sweet's Architectural Catalog File for 1939

IN ADDITION to the foregoing pages on Johns-Manville Building Materials, there are also included in Sweet's Architectural Catalog File for 1939 three other Johns-Manville Catalogs: a 36-page catalog of Johns-Manville Bonded Built-up Roofs; a 14-page catalog on Johns-Manville Transite Walls; and a 12-page catalog on J-M Sound Control. Copies of any or all of these illustrated brochures will be sent free on request at any of the Johns-Manville offices listed on the opposite page.

Built-up Roofs

"Johns-Manville Bonded Built-up Roofs" is the title of the illustrated brochure treating of the advantages of asbestos built-up roofs from the standpoint of fire safety, long life, freedom from annual maintenance and adaptability to any type of construction. Proper flashing is discussed in detail; the ease, economy and advantages of insulating the roof is clearly explained; and complete, detailed specifications are given for more than 40 types of built-up roofs, with smooth or gravel or slag surface, with or without insulation, on wood, concrete, pre-cast gypsum and steel roof decks.



Transite Walls

"Transite Walls by Johns-Manville" is a profusely illustrated brochure describing the new, fireproof, sound-resisting, modern partition wall which has all the permanence of the structural walls of the building yet can be moved and replaced or remodelled with no noise or dirt and is 100% salvageable. The brochure gives erection details and specifications of this most adaptable partition wall and suggests the unlimited decorative possibilities which make it suitable for every partition requirement of modern business, from factory production areas to the office of the president.

Sound Control

The brochure, "Johns-Manville Sound Control", gives a brief but instructive outline of the possibilities afforded by J-M Acoustical Laboratory research and perfected J-M methods and materials for reducing noise and controlling and isolating sound within closely prescribed limits. Applications of J-M systems of sound control for offices and schools, auditoriums, hospitals and churches; the quieting of ducts in air-conditioning installations; sound isolation for broadcast studios; and the necessary J-M materials are briefly described. The brochure is offered as a preliminary to intelligent discussion of sound control problems with a J-M acoustical engineer—both without obligation.

Copies of the above brochures may be obtained through any Johns-Manville office

SIXTY-THREE J-M OFFICES

are at your service

At each of the offices listed below, you will find representatives qualified to answer any questions about Johns-Manville products and to assist you in problems where J-M Materials can be of service.

AKRON
ATLANTA
BALTIMORE
BIRMINGHAM
BOSTON
BUFFALO
CHARLESTON, W. VA.
CHARLOTTE
CHICAGO
CINCINNATI
CLEVELAND
COLUMBUS
DALLAS
DAYTON
DENVER
DETROIT
EL PASO
ERIE
GRAND RAPIDS
HONOLULU
HOUSTON
INDIANAPOLIS
JACKSONVILLE
KANSAS CITY, MO.
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PHILADELPHIA
PITTSBURGH
PORTLAND, ME.
PORTLAND, ORE.
PROVIDENCE
RICHMOND
ROCHESTER
SALT LAKE CITY
SAN ANTONIO
SAN FRANCISCO
SEATTLE
ST. LOUIS
ST. PAUL
SYRACUSE
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TULSA
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22 East 40th St., New York, N. Y.

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JOHNS-MANVILLE BOLEY LTDA.
Buenos Aires, Argentina

JOHNS-MANVILLE
JM
PRODUCTS

JOHNS-MANVILLE

22 EAST 40th STREET, NEW YORK


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JM
PRODUCTS